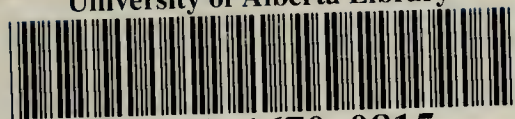


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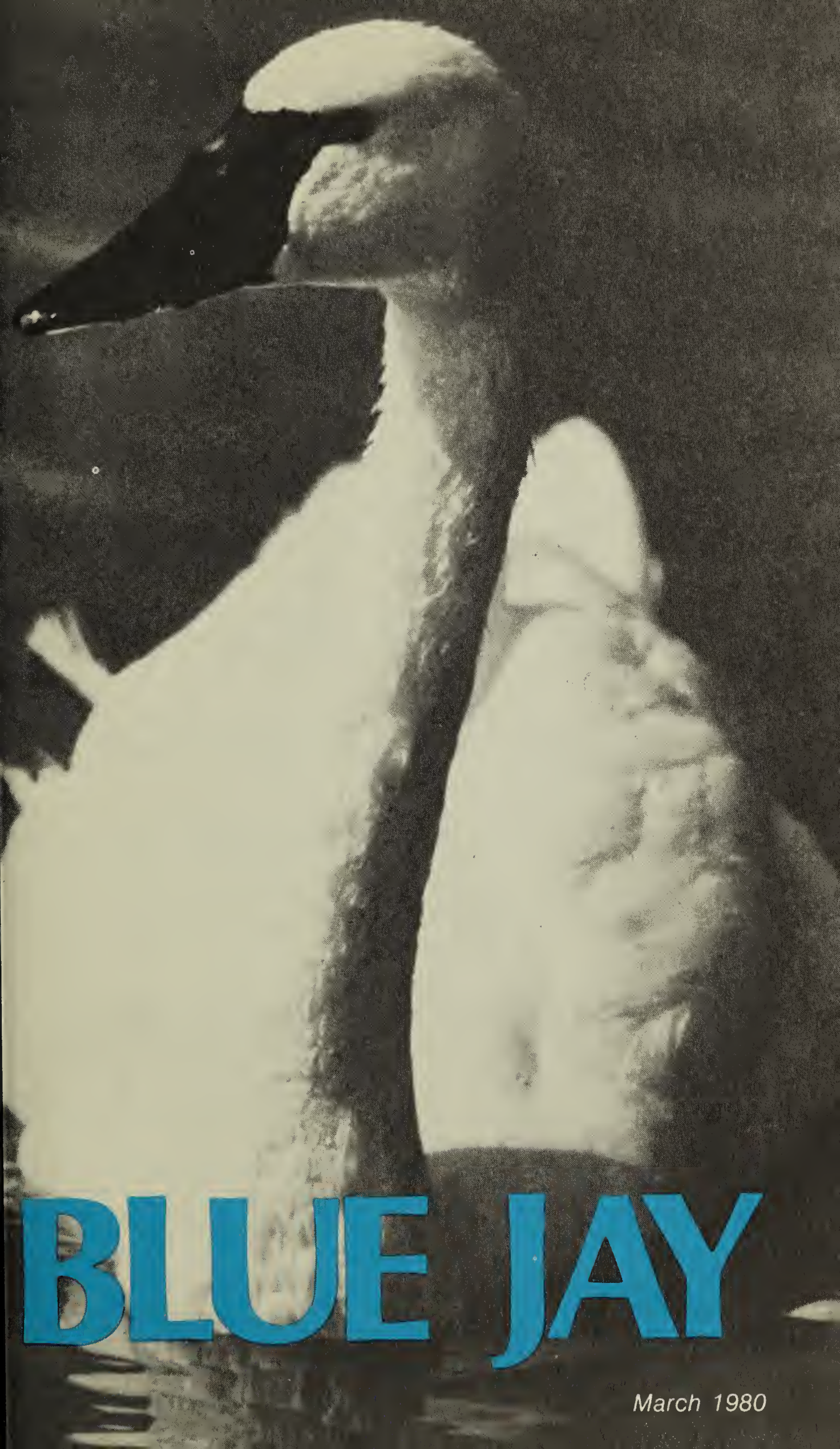


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BLUE JAY

March 1980

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Cover: *Whistling Swan*. Wayne Lynch

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RALPH STEUCK: IN MEMORIAM

ELIZABETH CRUICKSHANK, 2329 Athol Street, Regina, Saskatchewan, S4T 3G4.

On 2 October 1979, ten days before his 86th birthday, Saskatchewan lost one of its most widely known native naturalists, Ralph Steuck. As a Past President of the Saskatchewan Natural History Society he will be well-remembered by its members, and the readers of the *Blue Jay* magazine.

The thousands of visitors to his bird sanctuary and museum, as well as the countless school children and adults who heard and saw his illustrated lectures on wildlife, will remember him.

Residents of the province will remember him because an island bears his name in recognition of his work in the field of conservation.

"Sleepy Hollow" was the name Ralph Steuck chose for the bird sanctuary he developed in the heart of Abernethy. When he retired from Kerry Farm at McRorie, not far away, he and his wife transformed a piece of vacant property into a place of beauty that not only brought joy to themselves and the townsfolk, but attracted visitors from far and near.

While Mrs. Steuck took full responsibility for the garden, Ralph devoted his energies to the needs of the wild geese. "Once a goose man, always a goose man," he continually reminded his friends. He wanted his geese near him at all times, claiming that in manners, morals and memory they were superior to man.

Surrounding the sanctuary with a secure fence and tall reeds, he built a dugout and landing strip for geese. His first permanent guests, Maggie

and Jiggs, their wings clipped, over the years attracted many others from migrant flocks as they travelled over the area going north or south. Two of the trapped geese, Hiawatha and Queenie, Ralph donated to the Wascana Waterfowl Park, as a nucleus of the congregation that remains there today.

As friend and overseer, Ralph became so studiously aware of the sounds the geese made that he interpreted them. They became known as the talking geese and provided much amusement to visitors as he carried on conversations with his feathered friends.

A long time photographer of wildlife, he borrowed a movie camera from Fred Bard, Director of the Saskatchewan Museum of Natural History, to film a Whooping Crane that visited the Abernethy area in 1950. From then on he became fascinated with movie photography. Some of his footage was acquired by Walt Disney and the CBC. While his basement had been used as a place for his taxidermy activity for years, with his increasing interest in film making, he planted a "field" of oats to act as a stage in his basement where he might capture the live antics of small rodents.

Ralph claimed that he was busier in his sanctuary at Abernethy than he had ever been on the farm. He found he must organize his time to continue lecturing to students and entertaining visitors to his museum and goose sanctuary, to which he had added cages for injured birds and hibernating mammals.



Ralph Steuck talking to one of his Canada Geese at Sleepy Hollow Sanctuary, Abernethy, Saskatchewan.
Fenton R. Vance

For years he carried on, travelling over the country in his two-wheeled, camouflaged trailer filming and visiting farmers, urging them to establish goose sanctuaries, capturing animals for zoos and caring for his live animals.

Among his many safaris were several to Churchill to capture lemmings and to Elk Island to lasso buf-

falo. These were to fill requests from all over Canada as he did for mate pairs of his domesticated "wild" goose flock.

No firm plans have been made for the future of his animals or the museum. The sincere sympathy of a members of the SNHS is extended to his bereaved family.

FURTHER RECORDS OF SKIPPERS AND BUTTERFLIES FROM THE MILK RIVER - LOST RIVER AREA OF SOUTHEASTERN ALBERTA

TERRY W. THORMIN, Provincial Museum of Alberta, Edmonton; NORBERT G. KONDLA, Parks Division, Alberta Recreation and Parks, Edmonton; and CHARLES D. BIRD, Box 165, Mirror, Alberta.

Since the March 1977 article in the *Blue Jay* on the butterflies and skippers of this area, additional collecting by several individuals, as well as some older records just recently brought to light, have added considerably to our knowledge of the butterflies and skippers of this area.⁸ A recent article by Wallis and Wershler points out the unique and nationally significant conservation values present in the region.⁹ The in-

formation presented herein adds to its already lengthy list of significant natural features.

Included here are the first published Alberta reports of the Napa Skipper (*Ochlodes sylvanoides napa*), Rhesus Skipper (*Yvretta rhesus*), Scriptura Skipper (*Pyrgus scriptura*), and Afranius Dusky Wing (*Erynnis afranius*) as well as reports of 15 other species new to this area.



Figure 1: Lower Lost River area. In this area D. F. Hardwick found the only Canadian specimen of the *Scriptura Skipper*.



Figure 2: Wooded seepage area at base of sandstone cliff. It was here that W. W. Smith found the first Canadian individuals of *Weidemeyers Admiral*.

Also reported are earlier or later flight dates for 17 other species. Taxonomic changes, corrections, and notes are given for nine species. The total list of butterflies and skippers for the area is now 51 species. Undoubtedly more collecting will result in further additions. The original paper on this area should be consulted for an environmental overview. Figures 1 to 3 illustrate some of the butterfly habitats.

Species List

The scientific names and taxonomic order used in this article are taken primarily from dos Passos but incorporate more recent changes.¹ Common names are taken mostly from Hooper.⁵ Dates listed refer to the dates species were collected and/or observed. Names given after these dates are those of the collector or observer. Where specimens were

not retained by the collector specimen location is given after the collector's name. Additional information, where available, is given on relative abundance and habitat preference.

ROADSIDE SKIPPER (*Amblyscirtes vialis*): 22 May 1977, T. Thormin: 23 May 1977, E. Pike. Uncommon at edge of riparian forest. New record.

NAPA SKIPPER (*Ochlodes sylvanoides napa*): 14 and 15 August 1979, N. Kondla. Found in a variety of habitats, including riparian shrubbery, sage slope, and prairie grassland. This is the first published record for Alberta and only the second Alberta locality record of the species. Previously it was collected by G. Hilchie and by S. Shigematsu in the West Castle River area in the mountains of extreme southwestern Alberta. New record.

DELAWARE SKIPPER (*Atrytone delaware*): Alberta material of this species has in the past been referred to the sub-



Figure 3: Expansive native grasslands provide habitat for species such as the Alberta Arctic and Assiniboia Skipper.

species *lagus*. McCabe and Post provide the following comments for phenotypic identification of nominate *delaware* and the subspecies *lagus*; "A *d. delaware* has dark scales at the end of the discal cell on the DFW of the males. *A. d. lagus* has orange scales similar to the ground color in this position. Nominate *delaware* has dark brown borders (on the DFW) 1 mm or more wide. *A. d. lagus* have lighter borders and they are ½ mm wide or less."⁷ Alberta and Saskatchewan populations appear to be intermediate between the eastern *delaware* and the southwestern *lagus* populations. Phenotypic and genitalic studies are needed before accurate statements can be made about subspecies affinity.

UNCAS SKIPPER (*Hesperia uncas uncas*): 16 July 1978 and 17 August 1979, N. Kondla. Local in prairie grasslands. New record.

ASSINIBOIA SKIPPER (*Hesperia comma assiniboia*): 14 to 17 August 1979, N. Kondla. Frequent on blazing star (*Liatris punctata*) in grasslands. New record.

RHESUS SKIPPER (*Yvretta rhesus*): 22

May, 1977, T. Thormin. This is the first record for Alberta and only the second for Canada, the previous record being from the Qu'Appelle Valley in Saskatchewan.⁵ This specimen, like the Saskatchewan one, is a female in fresh condition. Figure 4 illustrates the specimen. The specimen was collected about 16 km east-northeast of Aden in open, overgrazed, arid grassland on the south side of the Milk River valley. New record.

GARITA SKIPPER (*Oarisma garita*): 3 June, 1973, G. Hilchie; 22 May 1977, T. Thormin. Uncommon in "richer" grassland. New record.

SCRIPTURA SKIPPER (*Pyrgus scriptura*): 23 July, 1951, D. F. Hardwick, Canadian National Collection. This is the only Alberta and Canadian record of this species. It was collected in Lost River Coulee. New record.

COMMON CHECKERED SKIPPER (*Pyrgus communis communis*): 14 August, 1979, N. Kondla. New flight date.

PERSIUS DUSKY WING (*Erynnis persius*): 22 May 1977, T. Thormin, in



Figure 4: First Alberta specimen of the Rhesus Skipper. Upperside on left, underside on right. Wing expanse is 25 mm.

riparian forest. The previous records of *E. persius* are actually *E. afranius*. Identification of the above mentioned specimen was confirmed by genitalic check. *E. persius* is single brooded, only flying in the spring. *E. afranius*, however, is double brooded, the second brood flying in late July and August. New flight date.

AFRANIUS DUSKY WING (*Erynnis afranius*): 8 June, 1978, T. Thormin; 23 and 24 May 1979, W. Nordstrom; 25 and 26 May 15 and 16 August 1979, N. Kondla. Fairly common on grassy hillsides. This is the first published report for Alberta although studies by Kondla indicate it is widespread in southern Alberta. Identity of specimens was confirmed by genitalic check. New record.

SILVER-SPOTTED SKIPPER (*Epargyreus clarus clarus*): 222 May 1977, T. Thormin; 16 July, 1978, N. Kondla. New flight dates.

ZELICAON SWALLOWTAIL (*Papilio zelicaon nitra*): The species discussed here has previously been treated as two distinct taxa, *Papilio zelicaon* Lucas and *P. nitra* W. H. Edwards. Fisher has shown that these two entities are conspecific, the black "nitra" form being a color morph of the more common yellow "gothica" form.⁴ Black morph 23 and 24 May 1979, N. Kondla; Yellow morph 16 July 1978 and 24 and 25 May 1979, N. Kondla; 25 May, W. Nordstrom. Locally abundant when hilltopping at escarpment edges and kame-like hills. New record.

BADLANDS OLDWORLD SWALLOWTAIL (*Papilio machaon dodi*): 23, 24 and 25 May 1979, N. Kondla; 8 June 1978, T. W. Thormin and A. N. Wiseley. Most abundant and easily seen on hilltops and escarpment edges. New flight dates. The taxonomy of the *Papilio machaon* complex in North America has been the subject of much research and controversy. Much still needs to be investigated and resolved. Emmel has assigned *dodi* to *P. oregonius*.² Although the rationale for this has apparently not been published it may be a more accurate designation than assigning *dodi* to the single-brooded, boreal forest *P. machaon*. One specimen caught by Kondla appears to show hybrid characters between *P. z. nitra* and *P. m. dodi*.

WESTERN CHECKERED WHITE (*Pieris occidentalis occidentalis*): 23 May 1979 and 16 July 1978, N. Kondla; 2 September, 1979, T. Thormin. Common in most habitats, particularly in the fall. New record.

YELLOW ALFALFA BUTTERFLY (*Colias philodice eriphyle*): Taxonomic change; current taxonomic opinion now places *eriphyle* under *philodice* rather than *eurytheme*. 24 and 25 May 1979, W. Nordstrom; 2 September 1979, T. Thormin. New flight dates.

ALEXANDRA SULPHUR (*Colias alexandra alexandra*): 3 June 1956, E. E. Stearns, Canadian National Collection; 8 June 1978, T. Thormin; 15 August 1979,

N. Kondla. Fairly common in grasslands, often seen along escarpment edges. The white morph of the female appears to be more abundant than the yellow morph. New record.

OLYMPIA MARBLE (*Euchloe olympia rosa*): 22 May 1977, G. Hilchie; 23 May 1977, E. Pike; 8 June 1978, T. Thormin and A. N. Wiseley; 23 and 24 May 1979, W. Nordstrom; 23 and 26 May 1979, N. Kondla. Fairly common in sageflats and grasslands, found abundantly on hilltops and escarpment edge. New record.

CORAL HAIRSTREAK (*Harkenclenus titus immaculosus*): 15 August 1979, N. Kondla. Shrubby seepage area. New record.

BROWN ELFIN (*Callophrys augustinus*): 24 May 1979, N. Kondla. Very local where the food plant, bearberry, grows. There are insufficient specimens available to assign a subspecific name. Dos Passos indicates the presence of both subspecies *iroides* and *augustinus* in Alberta.¹ New record.

GRAY HAIRSTREAK (*Strymon melinus*): 23 to 25 May 1979 and 16 August 1979, N. Kondla; 23 and 25 May 1979, W. Nordstrom. Taxonomic note: The series collected by Kondla appears to show consistent differences from the eastern *melinus humuli*, *melinus setonia* from British Columbia, and *melinus franki* from Arizona. Therefore no subspecies name is assigned. This species was observed to be fond of hilltopping where large brown sandstone rocks were present. When a brown van was parked at the escarpment edge, it soon attracted hilltopping hairstreaks that treated the van as a large rock. New flight dates.

PURPLISH COPPER (*Epidemia helloides*): Taxonomic change; nomenclature follows Ferris.³ 16 August 1979, N. Kondla. New flight date.

MELISSA BLUE (*Lycaeides melissa melissa*): 15 and 17 August 1979, N. Kondla. Most abundant in badlands and sage flats. New flight dates.

GREENISH BLUE (*Plebejus saepiolus amica*): 22 May 1977, T. Thormin. New flight date.

SHASTA BLUE (*Plebejus shasta minnehaha*): 3 July 1973, G. Hilchie. Ap-

parently a scarce to uncommon species in the badlands. New record.

SILVERY BLUE (*Glaucopsyche lygdamus couperi*): 23 May 1979, W. Nordstrom; 24 May 1979, N. Kondla. New flight date.



Silvery Blue.

T. W. Thormin

SPRING AZURE (*Celastrina argiolus lucia*): 23 May 1979, W. Nordstrom; 23 and 26 May 1979, N. Kondla. Found in coulee aspen stands and riparian cottonwoods where red osier dogwood grows. New flight dates.

WEIDEMEYER'S ADMIRAL (*Limenitis weidemeyeri oberfoellii*): 16 July 1978, N. Kondla. Observations by C. Wallis indicate that this species has a shorter flight period than the related White Admiral. New flight date.

PAINTED LADY (*Cynthia cardui*): 22 May 1977, T. Thormin, 23 and 26 May 1979 and 15 August 1979, N. Kondla, 2 September 1979, T. Thormin. Fairly common where hilltopping. This species apparently does not overwinter. In late May individuals often move into the province from further south, usually in a somewhat worn condition, to lay their eggs. It is from these that the fall brood hatches. New record.

MILBERT'S TORTOISE SHELL (*Nymphalis milberti furcillata*): 16 July

1978, N. Kondla. 15 August 1951, D. F. Hardwick, Canadian National Collection. Apparently uncommon. New record.

ACASTA CHECKERSPOT (*Chlosyne acastus acastus*): 22 May 1977, T. Thormin, 26 May 1979, N. Kondla. Observations by Kondla at Drumheller and at Dinosaur Park show a small second brood in August. August records are also expected for the Milk River area. New flight dates.

PEARL CRESCENT (*Phyciodes tharos*): 22 May 1979, T. Thormin; 26 May 1979, 14 to 17 August 1979, N. Kondla. Originally reported as subspecies *pulchella*, variation at the subspecies level in southern Saskatchewan, southern Alberta, and northern Montana needs further research. New flight dates.

APHRODITE (*Speyeria aphrodite*): The previous article reported this as subspecies *mayae* (properly called *manitoba*). Examination of the literature and comparison of specimens shows that specimens from this area appear intermediate between *manitoba* and *ethne*. For this reason no subspecific name is applied. Kondla has commented on the apparent affinities of *S. aphrodite* in Alberta.⁶ More research is certainly needed. 16 July 1978, 15 and 16 August 1979, N. Kondla. New flight dates.

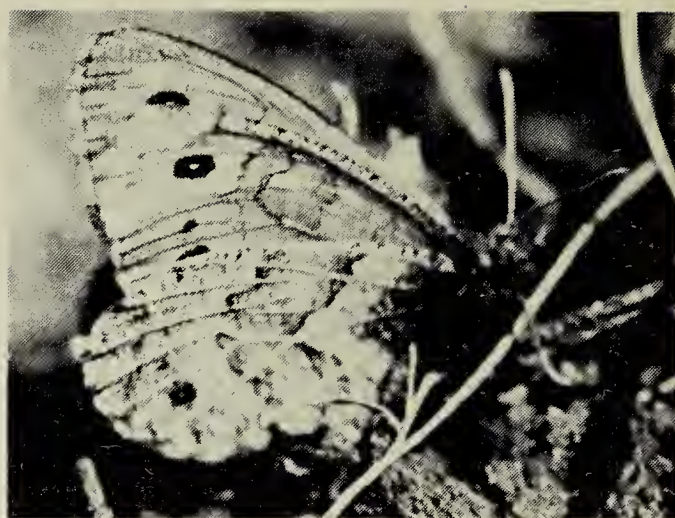
VARIEGATED FRITILLARY (*Euptoieta claudia*): 14 August 1979, N. Kondla. Uncommon in grasslands. This species does not overwinter in Alberta, but moves into the province each summer. New record.

RINGLET (*Coenonympha inornata benjamini*): 22 May 1977, T. Thormin. New flight date.

RIDING'S SATYR (*Neominois ridingsii ridingsii*): 16 July 1979, N. Kondla. Found on upper escarpments and adjacent grassland where bare soil is available. New flight date.

COMMON WOOD NYMPH (*Cercyonis pegala ino*): 14 August 1979, N. Kondla. New flight date.

ALBERTA ARCTIC (*Oeneis alberta alberta*): 23 and 25 May 1979, W. Nordstrom; 23 and 26 May 1979, N. Kondla. Abundant in prairie grasslands. New record.



Alberta Arctic.

T. W. Thormin

¹DOS PASSOS, C. F. 1964. A Synonymic List of the Nearctic Rhopalocera. The Lepidopterist's Society, Memoir No. 1. 145 pp.

²EMMEL, J. F. 1975. Subfamily Papilioninae. pp. 390-402. In Howe, W. H. The Butterflies of North America. Doubleday and Co. Inc., New York. 633 pp.

³FERRIS, C. D. 1977. Taxonomic revision of the species *dorcas* Kirby and *helooides* Boisduval in the genus *Epidemia* Scudder (Lycaenidae; Lycaeninae). Bull. of the Allyn Museum 45:1-42.

⁴FISHER, M. S. 1977. The taxonomy and identity of *Papilio nitra* W. H. Edwards in Colorado (Papilionidae). Bull. of the Allyn Museum 47:1-8.

⁵HOOPER, R. R. 1973. Butterflies of Saskatchewan. Saskatchewan Dept. Renewable Resources. 216 pp.

⁶KONDLA, N. G. 1979. Skippers and butterflies of a prairie farm. Alberta Natural. 9:71-75.

⁷McCABE, T. L. and R. L. POST. 1977. Skippers (Hesperioidea) of North Dakota. North Dakota Insects Publication No. 11. North Dakota State Univ. 69 pp.

⁸SMITH, W. W. and C. D. BIRD. 1977. Some butterflies and skippers from the Milk River-Lost River area of Southeastern Alberta. Blue Jay 35:15-18.

⁹WALLIS, C. and C. WERSHLER. 1979. Milk River Canyon. Nature Canada 8:36-45.

THE HORSERADISH FLEA BEETLE IN SASKATCHEWAN

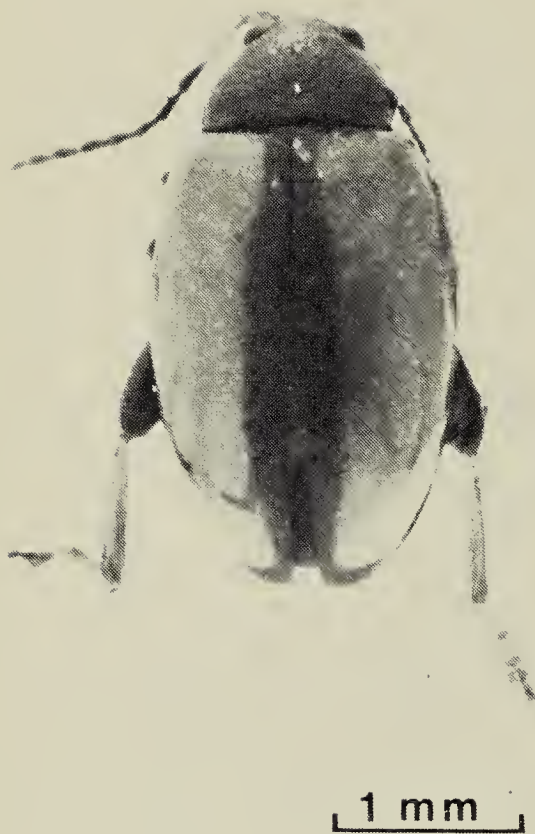
LARRY BURGESS, Agriculture Canada Research Station, Saskatoon, Saskatchewan, S7N 0X2

Flea beetles are leaf eating beetles characterized by their enlarged hind legs and ability to leap into the air when disturbed. There are a number of species of these beetles in Saskatchewan, and while some feed on several different host plants, others feed exclusively or almost exclusively on a single plant species. The horseradish flea beetle (*Phyllotreta armoraciae*) (Koch) is one of the latter, and as its name implies, it feeds on horseradish (*Armoracia rusticana*), which can occasionally be found in gardens and old or abandoned farm yards throughout the more settled parts of the province. This beetle is about 3-3.5 mm long, oval in shape, and when viewed from above has a black head and thorax and a central black stripe extending posteriorly along the inner margins of the two golden yellow wing covers (Figure 1). Feeding by these beetles leaves horseradish leaves riddled with holes (Figure 2). Similar damage to horseradish leaves is also caused by the crucifer flea beetle, (*Phyllotreta cruciferae*) (Goeze), which, however, is considerably smaller than the horseradish flea beetle, and recognizable by its solid black colour with a bluish lustre. Although we have found the horseradish flea beetle feeding only on horseradish, there is a possibility that it may feed on some of the cresses as apparently marsh cress (*Radicula palustris*) is one of its host plants.²

The horseradish flea beetle is an introduction from Europe, and was first recorded in North America in

1883 from Chicago near the grounds of the Columbia Exposition.¹ In 1910 A. F. Winn of Westmount, Quebec, reported that numbers of these beetles infested some horseradish seedlings he had grown from roots purchased at Bonsecours Market in Montreal, and that he later found some on a horseradish plant along a roadside.⁴ By 1917 it had been reported from Wisconsin and other states south of the Great Lakes as well as Nebraska, Iowa and New Jersey.² The date of its arrival in Saskatchewan is uncertain; the earliest collected specimen in the Saskatoon Research Station's collection is dated 1944 and is from Moose Jaw. The first report of this beetle in British Columbia was in 1968.³ In Saskatchewan, Ed Wiens and I have collected it from horseradish in a number of locations in the central part of the province, including Blaine Lake, Duck Lake, Fish Creek, Saskatoon, St. Denis and Donavon. Ed was unable to find any of these beetles on a patch of horseradish at Wymark in the southwestern part of the province. Similarly, we could not find any on a patch of horseradish growing close to the warden's cabin at Crean Lake in the boreal forest of Prince Albert National Park. These beetles are occasionally present in the boreal forest however, as we have taken one specimen in a trap beside the La Ronge highway to the west of Montreal Lake.

The horseradish flea beetle overwinters as an adult beetle in the soil, turf or leaf litter. In the middle of



1



2

Ralph R. Underwood

Figure 1. Adult horseradish flea beetle collected near Donavon, Saskatchewan.

Figure 2. Portion of a horseradish leaf showing flea beetle damage, caused probably by both horseradish and crucifer flea beetles.

September we have found these beetles in soil around the base of horseradish plants and in late February in turf, and in leaf litter beneath a carragana hedge. The latest we have found this beetle moving about on horseradish plants in the autumn was 4 November, 1975, a warm sunny day with a temperature of 14°C. In the spring the overwintered beetles become active with the arrival of warm sunny weather and we have seen them mating and feeding actively on horseradish shoots near Blaine Lake on 3 May.

Some of these beetles collected in a vial had begun laying their deep yellow eggs by 6 May and by 9 June larvae were found mining the petiole and midribs of a horseradish plant in a cage to which the eggs and adults had been introduced. Chittenden gives a good account of the life history of this insect.² He recorded one female as laying 418 eggs. He observed that the larvae, when nearing maturity, leave their mines in the petioles and midribs of the horseradish leaves and enter the soil where they pupate. Later in the

season the new adults emerge, and Chittenden recorded the time between egg laying and adult emergence as ranging from 77 to about 90 days. Upon emergence adults feed for a while and then enter their over-wintering quarters. In Saskatchewan, as in Wisconsin where Chittenden studied them, these beetles have only one generation per year.

While the horseradish flea beetle can be a serious pest where horseradish is grown commercially, in Saskatchewan, where much of the horseradish used as a relish is obtained as a prepared product from grocery store shelves, the horseradish flea beetle is another of Nature's creatures that lives more or less harmoniously with man.

Acknowledgements

I thank Mr. J. E. Wiens for his assistance and interest in these

observations, Mr. Ralph E. Underwood for his kindness in taking the photographs, and Parks Canada for their kind permission to study flea beetles in Prince Albert National Park.

¹CHITTENDEN, F. H. 1895. The horseradish flea-beetle. *Insect Life* 7:404-406.

²CHITTENDEN, F. H. 1917. The horseradish flea-beetle: Its life history and distribution. United States Department of Agriculture Bulletin Number 535.

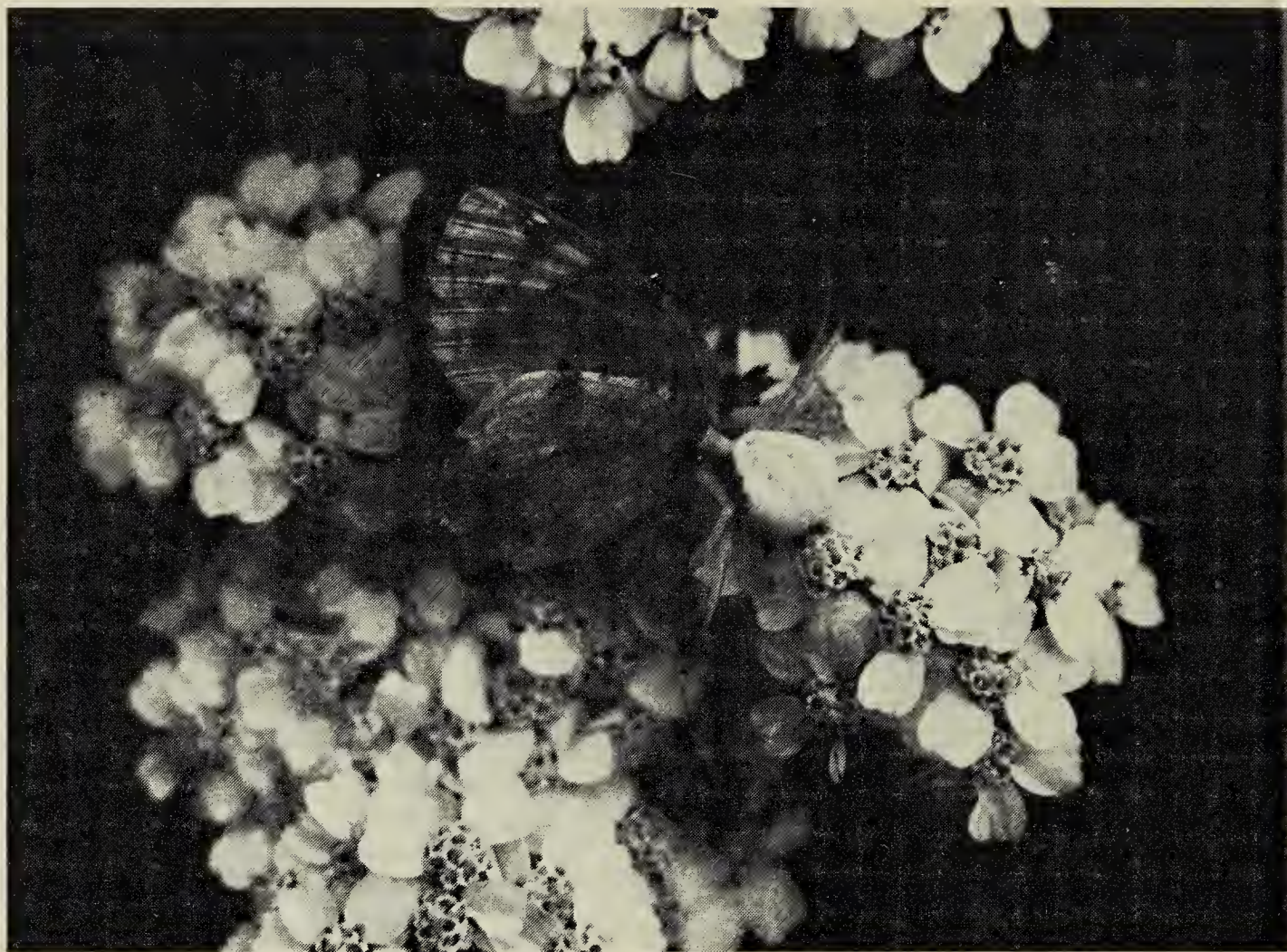
³LAZORKO, W. 1973. Three species of Coleoptera new to British Columbia. *Journal of the Entomological Society of British Columbia* 70:41.

⁴WINN, A. F. 1910. The horse-radish flea-beetle (*Phyllotreta armoraciae*, Koch). Forty-first Annual Report of the Entomological Society of Ontario: 59-60.



Tiger Swallowtail.

Gary Anweiler



Goldenrod Spider preying on a Pearl Crescent.

James W. Case

A REPORT OF A GOLDENROD SPIDER PREYING ON A PEARL CRESCENT

JAMES W. CASE, Department of Physics, University of Calgary, Calgary, Alberta, T2N 1N4.

On 4 July, 1976, I was able to do some butterfly collecting in the Boundary Lake area of west-central Alberta, about 165 km WNW of Peace River. While exploring an old trail through young aspen woods near MacLean Creek, I noticed an individual of Pearl Crescent (*Phyciodes tharos*) apparently sitting on a flower cluster of Common Yarrow (*Achillea millefolium*) at a very peculiar angle. Upon closer examination I observed that the butterfly was in the clutches of a cream-

white coloured crab spider. Due to the preoccupation of the spider, I was able to get a close-up photograph of the predator with its prey.

As it turns out, the spider is a female Goldenrod Spider (*Misumena vatia*). It is a holarctic species which regularly preys on nectar-feeding insects. The Pearl Crescent is a common butterfly in meadows and at the edge of woodlands across North America from the Northwest Territories south to Mexico, but is represented by several rather indistinct subspecies in this large range.

I would like to thank Dr. Robin Leech of the Alberta Research Secretariat for identifying the Goldenrod Spider from a photograph and to Dr. Charles D. Bird for confirming the identity of the butterfly.

STOMACH CONTENT ANALYSIS OF BROOK TROUT AND RAINBOW TROUT

DON J. WARNER, Wildlife/Recreation Student, Forest Technology School, Hinton, Alberta.

Through electrofishing of Hardisty Creek and Baseline Creek, it was noted that both brook trout (*Salvelinus fontinalis*) and rainbow trout (*Salmo gairdneri*) were present in each of the creeks. This project was to see if the food habits of these fish allow them to be compatible species in creeks or lakes and find out how much competition there is for food. Therefore an analysis was conducted on the stomach contents of rainbow trout and brook trout.

Fish samples were collected by the use of a Smith-Root Type V Electro-Fisher during the first two weeks of October, 1978. A modified volumetric method was used for the analysis of the stomach contents.¹ Identification of the stomach contents was done as expressed in Needham.²

Nineteen fish were analyzed from each creek. Table 1 shows that the volume of stomach contents analyzed for brook trout is relatively equal to that analyzed for rainbow trout. Direct analysis of the stomach contents showed a difference in the diets of the two species (Figure 1).

Rainbow trout have less variation in their diet, where plecoptera and fish are of little importance, whereas in brook trout, plecoptera and fish are important to the diet with the rest of it being quite varied (Figure 1). The high percentage of unidentified

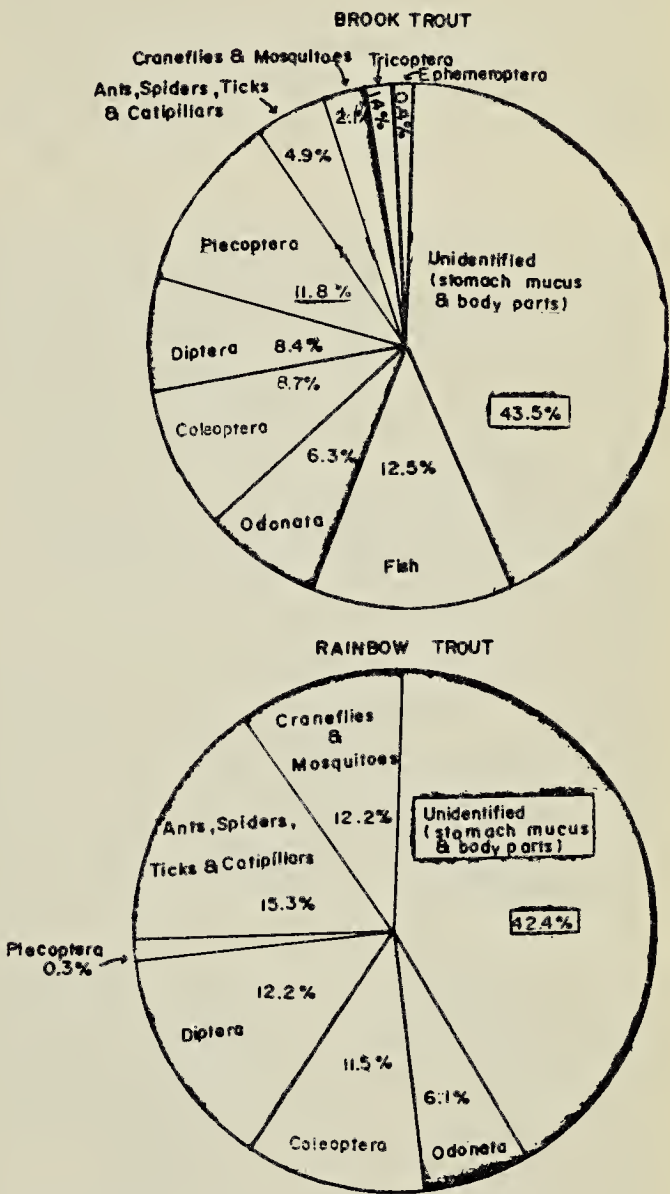


Figure 1: Stomach content analysis.

material shows that specialized equipment and techniques would have to be used to identify these objects to get a true picture of the fish's diet.

Figure 1 shows that brook trout are more selective in what they eat com-

TABLE 1 — Stomach Contents of Brook Trout and Rainbow Trout

Brook Trout	No. of fish sampled	Aver. stomach contents/fish	Range of stomach contents	Total contents analyzed
Baseline Creek	16	0.64 ml	0.1-1.5 ml	10.3 ml
Hardisty Creek	3	1.36 ml	1.0-2.0 ml	4.1 ml
Rainbow Trout				
Baseline Creek	3	1.03 ml	0.7-1.4 ml	3.1 ml
Hardisty Creek	16	0.63 ml	0.2-2.0 ml	10.0 ml

pared to rainbow trout. Therefore, I feel that both could be stocked in the same lake or stream, providing there are a wide variety of organisms for food.

¹LANGLER, K. 1972. Freshwater fishery biology. C. Brown Co. Publishers, Dubuque, Iowa.
²NEEDHAM, J. 1976. A guide to the study of fresh-water biology. Holden-Day, Inc., San Francisco.

ADDITIONAL RECORDS
OF THE RED-SIDED
GARTER SNAKE IN
SASKATCHEWAN

D. M. SECOY, Department of Biology, University of Regina, and P. RAMAEKERS, Saskatchewan Department of Mineral Resources, Regina, Saskatchewan.

The Red-sided Garter Snake (*Thamnophis sirtalis parietalis*) has been reported in Saskatchewan at Estevan and Amisk Lake.² ¹ It has also been seen in the Cypress Hills (personal communication, members of the Regina Natural History Society). We hereby report sightings of this species south of Lake Athabasca at 110° 00'W, 58° 07'N on

June, 1978 on a boulder esker near a marsh, and another 3 km south of Cluff Lake on 19 August, 1979, on a south-facing rocky slope. Both were sightings of single animals.

This species has been reported along the Birch River draining into Lake Athabasca in Alberta, and at Fort Smith, Northwest Territories.¹ Therefore, its presence in the boreal forest south of Lake Athabasca in the Athabasca basin is not unexpected.

¹LOGIER, E. B. S. and G. C. TONER. 1961. Check List of the Amphibians and Reptiles of Canada and Alaska. Contrib. No. 53, Life Sciences Div., Royal Ontario Museum.
²NERO, R. W. 1957. Observations on a garter snake hibernaculum. Blue Jay 15:116-118.

38th ANNUAL SASKATCHEWAN CHRISTMAS BIRD COUNT — 1979

Compiled by MARY I. HOUSTON, 863 University Drive, Saskatoon, Saskatchewan, S7N 0J8.

Mild weather throughout the Christmas Bird Count period made the outings an extra pleasure this year. Counters were out in 59 localities and recorded 76 species seen on Count Day with an additional five species seen during the count period but not on count days. This is

the highest species count since 1974 when 79 species were seen on Count Day with four additional during the count period.

Two species never before recorded on the Christmas Bird Count were one American Goldfinch at



Snowy Owl.

Lorne Scott

Saskatoon (map No. 44) and one Iceland Gull at Squaw Rapids (map No. 50); with a Cooper's Hawk at Leader (map No. 28) and a Common Snipe at Fort Walsh (map No. 15) recorded on count day rather than as additional during count period (as previously), the 38 year Count Day total is 128 species, with two races (Oregon Junco and Audubon's Warbler) and six additional species seen during count period.

The enthusiasm of Wayne Harris and Sheila Lamont (with baby daughter Anemone along) who organized or participated in 10 counts; Guy Wapple who organized or participated in 10; and Wayne Renaud, home for Christmas holidays, who worked in nine counts,

must be highly commended for the extensive coverage they helped to give the province.

Probably the most noticeable trend was the low number of Grosbeaks and Redpolls throughout the province. Of the 59 localities reporting, only 17 recorded Evening Grosbeaks, nine recorded Pine Grosbeaks, 12 recorded Common Redpolls and one recorded Hoary Redpolls. In all instances only small numbers of these species were seen (for example there were only 27 Pine Grosbeaks for the entire province).

Bringing up to date Renaud and Wapple's list of high individual counts published in the *Blue Jay* in December 1977, the following highs should be added:

Pintail	4	Saskatoon	1979
Goshawk	13	Squaw Rapids	1979
Prairie Falcon	2	Moose Jaw and Eastend-Ravenscrag	1977
Sage Grouse	106	Govenlock	1979
Rock Dove	2020	Saskatoon	1978
Snowy Owl	25	Regina	1979
Hairy Woodpecker	19	Saskatoon	1978
Northern Three-toed Woodpecker	8	Somme	1977
Horned Lark	569	Eastend	1978
Blue Jay	66	Togo	1977
White-breasted Nuthatch	6	Round Lake	1977
Brown Creeper	7	Prince Albert	1978
American Robin	197	Saskatoon	1978
Mountain Bluebird	+8	Eastend	1979
Starling	356	Saskatoon	1979
House Sparrow	6204	Saskatoon	1979
Evening Grosbeak	292	Togo	1977
Tree Sparrow	43	Fort Walsh	1979

Table 1 lists the locations of counts and participants; Table 2 gives the distances, time and weather; Table 3 shows numbers of those species seen in more than three localities either on count day or during count period; Table 4 gives the numbers and locations of species seen in three or less localities.

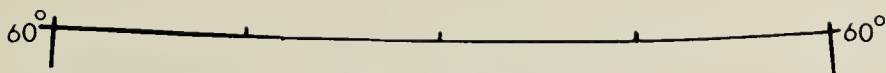
Species seen during count period but not on count day are marked with a + before the number of individuals seen.

Information on area description for each locality and dates of species seen during count period but not on count day, are available in the files.

TABLE 1 — Christmas Bird Count Participants

1. BATTLEFORD. Christopher Donovan, James Donovan, S. G. Sealy.
2. BIGGAR. Dale Hjertaas, Paule Hjertaas, Don Renaud, Wayne Renaud, Guy Wapple (compiler), Robert Wapple.
3. BIG GULLY CREEK. Wayne Harris (compiler), Sheila Lamont.
4. BROADVIEW. David Chaskavich, Don Weidl (compiler).
5. CLARKBORO. Muriel Carlson (compiler), Irene Gordon, Barbra Stoner.
6. DALMENY. Vi Harper, Vic Harper, Brian Sperling, Gilbert Sperling, Lorne Sperling, Lloyd Sperling (compiler).
7. DILKE. Margaret Belcher.
8. DUPEROW-RUTHILDA. Wayne Renaud, Guy Wapple (compiler).
9. EASTEND. Tom Donald, Mike Gollop (compiler), Jane Jenkins, Rick Jerema, John McIntyre, Wayne Renaud, Guy Wapple.
10. EASTEND. Mrs. Kennedy, Henri Lebastard (compiler), Mrs. McCuaig, Mrs. Phillips.
11. ELBOW. Stan Shadick, Alan R. Smith (compiler).
12. ENDEAVOUR. Norman Harris.
13. FEUDAL. Guy Wapple.
14. FORT QU'APPELLE. E. Manley Callin (compiler), Ethel Cockwill, Bernie deVries, Doug Evans, Ron Hooper, Joe Kralkay, Lois Lamontagne, Alan Mlazgar, Lorne, Don and Shaun Rowell, Gilbert Rumancik, Leo Schmalz.
15. FORT WALSH. Wayne Harris, Sheila Lamont, Wayne Renaud, Guy Wapple (compiler), Jack Wilkinson, Janet Wilkinson.
16. FRONTIER. Jack Wilkinson, Janet Wilkinson.
17. GARDINER DAM. Wayne Renaud, Guy Wapple (compiler).
18. GLAMIS-WISETON. Grev and Berna Jones.
19. GOVENLOCK. Wayne Harris (compiler), Sheila Lamont.
20. HARRIS. Wayne Renaud, Guy Wapple (compiler).
21. HUMBOLDT. Ed Brockmeyer (compiler), Clarence Saretsky, Dwayne Saretsky.
22. INDIAN HEAD. Cec and Betty Ashmore, Margaret Barclay, Peter Barrett, Vic and Margo Beaulieu, Hazel Buglass, Com, Elizabeth, Shane and MacKinley Davidson, Irv and Richard Escott, Roger and Mavis Gray, Vic and Stella Horsman, Jim and Jean Howard, Gordon Howe, Helen King, Fred Lahrman, Ted McCurdy, Roy and Rose McLaughlin, Mrs. A. Norum, Eldon, Molly, Sonja and Wilda Norum, Lloyd and Muriel Peterson, Joan, Adam and Lorne Scott (compiler), Fred, Mary and Ken Skinner, Sandy Smith-Windsor, Ron, Donna, Andrea, Denis, and Orland Thompson, Gordon and Anne Willerth.
23. KELVINGTON. Dianne Sloan (compiler), Graham Sloan.
24. KENASTON. P. Lawrence Beckie.
25. KINDERSLEY. Jean Harris (compiler), Lane Harris, Tim Harris.
26. KUTAWAGAN LAKE (centered 19 km north of Semans). Wayne Harris (compiler), Sheila Lamont.
27. LAST MOUNTAIN LAKE (management unit and immediate area). Wayne Harris (compiler), Sheila Lamont.
28. LEADER. Wayne Harris (compiler), Sheila Lamont.
29. LEADER. Daisy D. Meyers.
30. LOON LAKE. Dr. P. M. Davis.
31. LUSELAND. Estelle Finley, Kerry Finley (compiler), Kim Finley, Don Martfeldt, Scott Wardley.
32. MACDOWALL. Nigel Caulkett, Dan Neves, Stan Shadick (compiler).
33. MAIDSTONE BRIDGE. Wayne Harris (compiler), Sheila Lamont, Tom Lamont.

34. MOOSE JAW. Carl Ellis, Jeanette Fjetland, Doug Francis, Ruth Hilling, Pat Kern, Cy Knight, Leith Knight (compiler), Bernice Lewis, Moray Lewis, James McMurdo, Molly Ritchie, Jean Thomson, Wilma Young, Gus Zado.
35. NICOLLE FLATS. Dale Hjertaas (compiler), Paule Hjertaas.
36. NISBET FOREST. Rhoda Brockington, Muriel Carlson (compiler), Veitha Paine.
37. OUTLOOK. Harold Kvinge.
38. PIKE LAKE. Laurel and Kent Brace, Maddie and Bernie Gollop, Dan McIntosh, Dan Neves, Stan Shadick (compiler), Alan and Edward Smith.
39. PRINCE ALBERT. Ansgar and Christie Aschim, Tony Capusten, B. Happ, Wayne Harris (compiler), Sheila Lamont, Margaret Lewis, Hertha McCorriston, Louis and Joice Olsen.
40. RAYMORE. Greta Harris, Wayne Harris (compiler), Sheila Lamont, Lloyd Saul.
41. REGINA. Chris Adam, Margaret Belcher, John Beveridge, Tom Beveridge, Frank Brazier, Eric Cooke, Kirsten Costain, Ann Fines, Murray Fines, Randall Fines, Jim Hines, Jim Jones, Jim Jowsey, Shirley Jowsey, Greg Kraetzig, Robert Kreba (compiler), Eric Lang, Tony Lang, Bob Luterbach, George Luterbach, Christine MacDonald, Blair McPherson, Lorraine McPherson, Brad Muir, Joe Roberts, Annika Rummenns, Bill Russan, Diane Secoy, Gary Seib, Barbara Shourounis, Glen Sutherland, Frank Switzer, Ian Switzer, Dorothy Tegart, Margaret Wigmore, Christophe Wilhelm, Pierre Wilhelm, Maureen duWors, Mary Ann Xhignesse.
42. ROUND LAKE. Doug Francis.
43. ST. WALBURG. Maurice Caulkett, Nigel Caulkett (compiler), Leonard Wourms.
44. SASKATOON. Juhachi Asai, Bob and Garth Besant, Ray Bisha, Ian Creurer, Eric Diehl, Hartley Fredeen, Geoff and Muriel Galloway, Mary Gilliland, Bernie and Madeleine Gollop, Barb Hanbidge, Bruce and John Hanbidge, Dale and Paule Hjertaas, Sam Homenuik, Dr. C. J. Houston, Stuart Houston (compiler), David Houston, Mary Houston, Ron Jensen, Blake Maybank, Jo McRobbie, Betty and Jim Mundy, Dan Neves, Bill Nickel, Jim and Pat O'Neil, Don Renaud, Wayne Renaud, John and Stan Shadick, Jim Slimmon, Alan Smith, Edward Smith, Judy Taylor, Guy Wapple.
45. SCOTT. Wayne Renaud, Guy Wapple (compiler).
46. SKULL CREEK. Eileen Bennetto, Jim Bennetto (compiler), Betty Mann, Bob Mann, Mrs. M. Mann, Marjorie Mann, Don Pearce, Michele Schuler, Ray Schuler.
47. SOMME. David Black, Donald Hooper.
48. SPIRIT LAKE. Bill and Joyce Anaka.
49. SPRING VALLEY. Allan Bogdan, Flossie Bogdan (compiler), Larry Bogdan, Nick Bogdan, Dean Goian.
50. SQUAW RAPIDS. Wayne Harris (compiler), Sheila Lamont, Don Renaud, Wayne Renaud, Guy Wapple.
51. SQUAW RAPIDS - SIPANOK CHANNEL. John Comer, Larry Prokopetz, Lyle Prokopetz.
52. WASECA. Hans deVogel, Tom Lamont, Christine Pike (compiler).
53. WASKESIU. Stan Houston, Venta Kabzems.
54. WEBB-SWIFT CURRENT. Max Mirau, Bob Peart (compiler).
55. WHITE BEAR. Darryl, Gary, Lynette, Ruby and Sig Jordheim (compiler).
56. WHITEBEECH. Ida and Lindsay Wotherspoon (compiler).
57. WOLSELEY. Dale Chay, Donald Hayward (compiler).
58. YORKTON. M. Bromley, A. Matlock, J. Matlock, Phil Pawluck (compiler).
59. WYNYARD. Charlotte Gulley, John Gulley (compiler), Rendal Kachur.



- | | |
|------------------------|----------------------------------|
| 1. BATTLEFORD | 31. LUSELAND |
| 2. BIGGAR | 32. MACDOWALL |
| 3. BIG GULLY CREEK | 33. MAIDSTONE BRIDGE |
| 4. BROADVIEW | 34. MOOSE JAW |
| 5. CLARKBORO | 35. NICOLLE FLATS |
| 6. DALMENY | 36. NISBET FOREST |
| 7. DILKE | 37. OUTLOOK |
| 8. DUPEROW-RUTHILDA | 38. PIKE LAKE |
| 9. EASTEND | 39. PRINCE ALBERT |
| 10. EASTEND | 40. RAYMORE |
| 11. ELBOW | 41. REGINA |
| 12. ENDEAVOUR | 42. ROUND LAKE |
| 13. FEUDAL | 43. ST. WALBURG |
| 14. FORT QU'APPELLE | 44. SASKATOON |
| 15. FORT WALSH | 45. SCOTT |
| 16. FRONTIER | 46. SKULL CREEK |
| 17. GARDINER DAM | 47. SOMME |
| 18. GLAMIS-WISETON | 48. SPIRIT LAKE |
| 19. GOVENLOCK | 49. SPRING VALLEY |
| 20. HARRIS | 50. SQUAW RAPIDS |
| 21. HUMBOLDT | 51. SQUAW RAPIDS-SIPANOK CHANNEL |
| 22. INDIAN HEAD | 52. WASECA |
| 23. KELVINGTON | 53. WASKESIU |
| 24. KENASTON | 54. WEBB-SWIFT CURRENT |
| 25. KINDERSLEY | 55. WHITE BEAR |
| 26. KUTAWAGAN LAKE | 56. WHITEBEECH |
| 27. LAST MOUNTAIN LAKE | 57. WOLSELEY |
| 28. LEADER | 58. YORKTON |
| 29. LEADER | 59. WYNYARD |
| 30. LOON LAKE | |

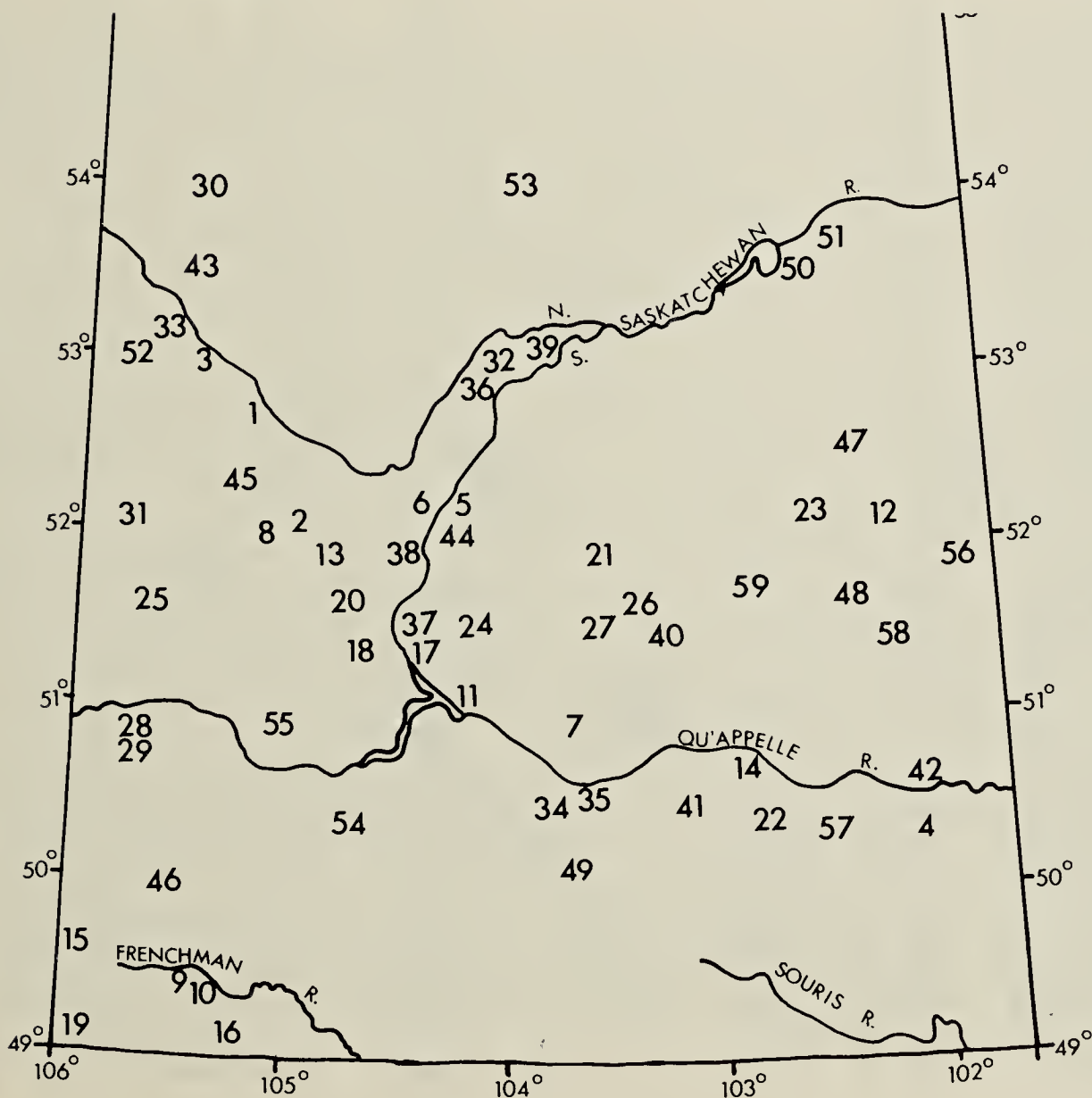


TABLE 2

	Km - car	Hrs - car	Km - foot	Hrs - foot	Km - ski	Km - snowmobile	Hrs - ski&snow	Hrs - feeder	Temp - Celsius	Wind - km/hr	Snow depth (cm)	Sky
Battleford	71	2	17	8	-	-	-	-	-12to-6	calm	5-20	clear
Biggar	188	10	24	8	-	-	-	-	-6to-2	0-20	0-10	clear, cldng
Big Gully Cr	90	3	10	4	-	-	-	-	-3to+2	0-8	10-20	clear
Broadview	150	4	6	2	-	-	-	-	-7to-4	10-15	4-12	cloudy
Clarkboro	4	1	-	-	8	-	3	-	-3	0-10	10-15	clear
Dalmeny	-	-	-	-	52	-	22	8	0to-10	5-10	3-45	clear
Dilke	114	4	6	2	-	-	-	-	-13to-8	0-10	0-5	clear
Duperow-Ruth	179	6	6	2	-	-	-	-	-10to-2	calm	0-8	clear
Eastend	202	5	42	15	-	-	-	-	-5to+6	16-60	0	cloudy
Eastend	60	2	6	2	-	-	-	-				
Elbow	40	3	6	4	-	-	-	-	-5to0	calm	0-5	clear
Endeavour	-	-	6	2	-	-	-	-	-28to-18	calm	15-45	clear
Feudal	183	5	6	2	-	-	-	-	-12to-10	calm	0-10	cloudy
Ft Qu'App	250	9	-	-	-	-	-	-	-9to-4	10	10	cloudy, clrng
Fort Walsh	187	12	38	21	-	-	-	-	-22to-8	0-80	0-10	clear, cldng
Frontier	50	4	2	1	-	-	-	-	-10to0	15-25	0	part cloudy
Gardiner Dam	156	5	12	7	-	-	-	-	+1to+4	0-40	0-3	most cloudy
Glamis-Wise	40	2	2	1	2	-	1	-	0to+4	0-6	0-10	most clear
Govenlock	70	7	1	1	-	-	-	-	-31to-18	20-60	0-3	clear
Harris	137	5	13	7	-	-	-	-	-10to+2	calm	0-15	most clear
Humboldt	20	2	-	-	10	15	4	-	-10to-3	0-5	20	clear
Indian Head	100	6	4	3	-	-	-	4	-10to-6	0-10	5-10	clear
Kelvington	8	1	-	-	-	-	-	5	-16to-7	calm	35	---
Kenaston	14	1	6	4	-	8	1	-	-14to-5	calm	10	clear
Kindersley	20	2	-	-	-	4	1	3	--	--	--	clear
Kutawagan L	80	4	1	1	-	-	-	-	-13to-5	10-25	8-13	clear
Last Mtn L	110	5	1	1	-	-	-	-	-4to-2	10-25	6-10	clear
Leader	25	3	1	1	-	-	-	-	-5to+3	10-25	0-5	most cloudy
Leader	1	1	2	3	-	-	-	-	-10to-4	calm	5	cloudy, clrng
Loon Lake	10	1	-	-	-	-	-	2	-1to+1	calm	15	clear
Luseland	115	8	17	5	-	-	-	1	-10to+1	0-5	8	most clear
MacDowall	65	5	2	1	-	-	-	-	-8to-3	0-5	10-15	clear
MaidstoneBr	25	2	15	7	-	-	-	2	-7to+1	0-10	10-20	clear
Moose Jaw	208	13	7	7	-	-	-	-	-5to+1	5-10	0	clear
Nicolle Flat	60	4	13	6	-	-	-	-	-8to-3	5-10	0-4	clear
Nisbet For	-	-	-	-	12	-	4	-	-12	--	--	clear
Outlook	?	7	-	-	-	-	-	-	--	calm	0-3	clear
Pike Lake	173	13	2	1	6	-	3	-	-11to-5	6-15	5-13	clear
Pr Albert	80	4	10	5	-	-	-	5	-10to-2	0-10	15-30	clear
Raymore	75	4	12	6	-	-	-	1	-11to-4	0-10	10-15	clear
Regina	766	34	58	26	-	-	-	-	-10to+2	0-10	2-10	clear
Round Lake	82	6	2	1	-	-	-	2	-8to-10	calm	30	clear
St Walburg	200	7	5	1	-	-	-	-	-5to-10	0-10	3-5	part cloudy
Saskatoon	400	35	125	57	9	-	5	8	-4to-13	10	10-15	clear
Scott	179	6	9	5	-	-	-	-	-12to-3	calm	0-15	clear

TABLE 2
(cont'd)

	Km - car	Hrs - car	Km - foot	Hrs - foot	Km - ski	Km - snowmobile	Hrs-ski & snow	Hrs - feeder	Temp - Celsius	Wind - km/hr	Snow depth (cm)	Sky
Skull Creek	10	3	10	5	-	-	-	-	+2to+8	10-25	0	clear
Somme	25	2	8	2	-	-	-	-	-2	--	25	--
Spirit Lake	?	4	3	2	-	-	-	2	-7to-4	0-10	15-25	overcast
Spring Vall	80	3	9	3	-	-	-	-	-8to+2	5-15	3-5	part cloudy
Squaw Rapids	50	9	38	19	-	-	-	-	-10to-2	0-5	7-10	clear
Squaw-Sipanok	50	3	1	1	-	-	-	-	-20to-25	--	8-12	most clear
Waseca	?	?	?	?				?	--	--	6	most clear
Waskesiu	-	-	-	-	26	-	5	-	-20to-15	calm		clear
Webb-Swift C	189	4	2	1	-	-	-	-	0to+5	5-30	0	--
White Bear	-	-	16	5	-	-	-	-	+1to+2	calm	0-3	clear
Whitebeech	-	-	4	2	-	8	1	6	-4to-6	0-5	20-25	clear
Wolseley	40	2	4	2	-	5	1	1	-8to-10	0-5	8-10	clear
Yorkton	41	2	1	1	-	-	-	-	-10to-11	6-8	14-16	part.cloudy
Wynyard	70	3	-	-	-	5	1	-	-10	10	--	part cloudy



Bohemian Waxwings. Lorne Scott

TABLE 3-1

	Battleford Dec. 26	Biggar Dec. 22	Big Gully Cr Dec. 20	Broadview Dec. 24	Clarkboro Dec. 27	Dalmeny Dec. 29	Dilke Dec. 30	Duperow-Ruth- ilda Dec. 28	Eästend Dec. 17	Eastend Dec.	Elbow Dec. 28
Mallard	-	-	-	3	-	-	-	-	8	-	300
Com Goldeneye	-	-	-	-	-	-	-	-	-	-	1
Com Merganser	-	-	-	1	-	-	-	-	-	-	-
Goshawk	+1	-	1	-	-	-	-	-	-	-	-
Roughleg Hawk	1	-	-	-	-	-	-	2	1	1	-
Golden Eagle	-	-	1	3	-	-	-	1	3	2	-
Bald Eagle	-	-	-	-	-	-	-	-	1	1	-
Prairie Falcon	-	-	-	-	-	-	-	-	-	-	-
Merlin	1	1	-	-	-	-	-	-	-	-	-
Ruffed Grouse	6	-	1	-	3	-	-	1	-	-	1
Sharp-t Grouse	34	265	8	152	-	45	7	154	3	6	53
Ring-n Pheasant	1	-	-	-	-	-	-	-	11	4	-
Gray Partridge	-	21	-	18	4	17	32	12	3	12	-
Rock Dove	142	119	15	2	14	124	12	31	140	-	11
G Horned Owl	1	3	1	-	-	2	-	1	3	1	-
Snowy Owl	-	+1	1	-	-	+1	+1	3	-	1	1
Short-ear Owl	-	-	-	-	-	-	-	+1	-	-	-
Com Flicker	-	-	-	-	-	-	-	-	+1	2	-
Pileated Wdpkr	-	-	1	-	-	-	-	-	-	-	-
Hairy Wdpkr	2	-	4	-	3	2	-	1	1	-	-
Downy Wdpkr	3	1	1	-	2	2	-	1	1	-	1
Horned Lark	+1	-	-	-	-	-	14	-	1	6	8
Gray Jay	-	-	-	-	-	-	-	-	-	-	-
Blue Jay	1	-	1	-	-	6	-	-	1	2	-
B-b Magpie	30	128	18	19	2	38	10	67	198	36	11
Com Raven	-	-	1	-	-	-	-	-	-	-	-
Black-c Ch'dee	15	10	14	10	12	13	4	-	63	6	6
Boreal Ch'dee	-	-	-	-	-	-	-	-	-	-	-
White-br Nuth'ch	-	-	-	-	-	-	-	-	-	-	-
Red-br Nuth'ch	-	-	4	-	-	-	-	-	39	-	-
Brown Creeper	-	+1	-	-	-	-	-	-	1	-	-
Am Robin	-	-	-	-	-	-	-	-	+1	-	-
Golden-c Kinglet	-	-	1	-	-	-	-	-	9	-	-
Bohem Waxwing	409	111	140	40	58	+9	100	52	51	6	153
Cedar Waxwing	-	-	-	-	-	-	-	-	-	-	-
N Shrike	1	-	-	-	-	-	-	-	+1	-	-
Starling	-	11	-	-	-	-	18	-	13	12	-
House Sparrow	151	1654	225	133	14	35	517	588	359	100	50
Eveng Grosbeak	-	-	-	-	-	-	-	-	-	-	-
Pine Grosbeak	-	-	-	-	-	-	1	-	-	-	-
Com Redpoll	-	-	-	-	-	-	-	-	-	-	-
Red Crossbill	-	-	-	-	-	-	-	-	47	-	-
White-w Crossbill	-	-	-	-	-	-	-	-	30	-	-
Snow Bunting	87	21	-	450	3	300	1	6	+4	12	3
Species in Table 4	0	0	0	0	0	0	0	0	3	2	1
Count day species	16	12	18	11	10	11	11	14	26	18	14
Count period species	18	14	18	11	10	13	12	15	30	19	14
Count day indiv	885	2345	438	831	115	584	716	920	997	212	600

TABLE 3-2

	Endeavour Dec. 26	Feudal Dec. 31	Ft. Qu'Appelle Dec. 22	Ft. Walsh Dec. 16	Frontier Dec. 24	Gardiner Dam Dec. 19	Glamis-Wiseton Dec. 27	Govenlock Dec. 15	Harris Dec. 21	Humboldt Dec. 29	Indian Head Dec. 30	Kelvington Dec. 26
Mallard	-	-	120	4	-	454	-	-	-	-	1	-
C Goldeneye	-	-	1	-	-	52	-	-	-	-	1	-
C Merganser	-	-	-	-	-	3	-	-	-	-	-	-
Goshawk	-	-	-	1	-	-	-	-	-	1	-	-
R-leg Hawk	-	-	-	2	-	-	-	-	-	-	-	-
Golden Eagle	-	-	-	2	2	1	-	1	1	-	-	-
Bald Eagle	-	-	+1	2	-	4	-	-	-	-	2	-
Prairie Falc	-	-	-	1	-	1	-	-	-	-	-	-
Merlin	-	1	-	1	+1	-	-	-	-	-	+1	-
Ruff Grouse	-	-	1	3	-	1	-	-	-	-	10	-
S-t Grouse	13	18	51	11	7	-	4	-	303	25	20	7
R-n Pheasant	-	-	+2	10	19	2	-	1	-	-	1	-
Gray Partr	-	12	7	1	21	-	17	18	29	-	96	11
Rock Dove	-	103	123	8	+12	14	50	-	52	-	113	-
G H Owl	-	1	+1	2	+1	1	1	-	1	1	4	+1
Snowy Owl	-	2	+1	+1	+2	1	1	1	1	+1	4	-
Sh-ear Owl	-	-	-	-	-	1	-	-	-	-	-	-
C Flicker	-	-	-	-	-	-	-	-	-	-	-	-
Pileat Wdpkr	-	-	-	-	-	-	-	-	-	-	-	-
Hairy Wdpkr	1	-	1	3	-	-	-	-	-	-	7	3
Downy Wdpkr	-	2	4	4	-	1	-	-	1	1	4	1
Horned Lark	-	-	1	15	6	-	-	36	1	-	7	-
Gray Jay	-	-	-	-	-	-	-	-	-	-	-	-
Blue Jay	-	-	2	-	-	1	-	-	-	-	3	1
B-b Magpie	3	92	39	127	33	52	10	1	100	5	54	10
C Raven	23	-	-	-	-	-	-	-	-	-	-	-
Bl-c Ch'dee	4	2	20	79	-	8	-	-	8	7	17	4
Boreal Ch'de	-	-	-	-	-	-	-	-	-	-	-	-
Wh-br Nut	-	-	+2	-	-	-	-	-	-	-	-	-
Red-br Nut	-	-	-	27	-	-	-	-	-	-	3	-
Brown Creep	-	-	-	2	-	-	-	-	-	-	-	-
Am Robin	-	-	+1	-	-	1	-	-	-	-	-	-
G-c Kinglet	-	-	-	37	-	-	-	-	-	-	-	-
Boh Waxwg	-	265	50	56	+22	110	-	-	48	1	62	-
Cedar Waxwg	-	-	-	-	-	-	-	-	-	-	-	-
N Shrike	-	-	2	1	-	-	-	-	-	-	+1	-
Starling	-	-	-	-	60	-	-	-	7	-	-	-
House Spar	13	494	368	241	500	15	140	32	450	10	320	1
Eve Grosbk	-	-	-	1	-	-	-	-	6	-	-	35
Pine Grosbk	-	-	-	-	-	-	-	-	-	-	-	4
C Redpoll	-	-	-	3	-	-	-	-	-	-	1	-
Red Xbill	-	-	-	7	1	-	-	-	-	-	-	-
W-w Xbill	-	-	-	-	-	-	-	-	-	-	-	-
Snow Bunting	26	-	+40	21	-	22	50	41	59	+300	37	100
Species in Table 4	0	0	0	11	0	10	0	1	0	0	0	0
Ct day sp	7	11	15	35	8	30	8	9	15	8	21	11
Ct perd sp	7	11	22	38	13	30	8	9	15	10	23	12
Ct indiv	83	992	790	744	648	786	273	237	1067	51	767	177

TABLE 3-3

	Kenaston Dec. 26	Kindersley Jan. 1, 1980	Kutawagan L. Dec. 26	Last Mtn. L. Dec. 28	Leader Dec. 17	Leader Dec. 30	Loon Lake Dec. 26	Luseland Dec. 26	MacDowall Dec. 29	Maidstone Br. Dec. 18	Moose Jaw Dec. 26	Nicollie Flats Dec. 28
Mallard	-	-	-	-	-	-	-	-	-	-	-	13
C Goldeneye	-	-	-	-	-	-	-	-	-	-	-	-
C Merganser	-	-	-	-	-	-	-	-	-	-	-	-
Goshawk	-	-	-	-	-	-	-	-	-	1	-	-
R-leg Hawk	-	-	-	-	1	-	-	-	-	-	-	-
Golden Eagle	-	-	-	-	-	1	-	-	-	-	-	-
Bald Eagle	-	-	-	-	-	-	-	-	-	1	-	-
Prairie Falc	-	-	-	-	-	-	-	-	-	-	-	-
Merlin	-	-	-	-	-	-	-	1	-	-	1	-
Ruff Grouse	-	-	-	-	-	-	+2	-	-	11	-	1
S-t Grouse	25	-	8	-	1	11	-	18	-	3	-	26
R-n Pheasant	-	-	1	+1	1	6	-	-	-	-	12	-
Gray Partr	16	-	45	55	18	-	-	3	-	-	32	-
Rock Dove	3	3	16	2	23	-	-	29	-	-	237	9
G H Owl	1	-	2	3	-	-	-	-	-	3	-	-
Snowy Owl	1	1	6	15	1	-	-	1	-	+1	6	1
Sh-ear Owl	-	-	-	-	-	-	-	-	-	-	-	-
C Flicker	-	-	-	-	-	-	-	-	-	-	6	-
Pileat Wkpk	-	-	-	-	-	-	-	-	-	-	-	-
Hairy Wdpkr	1	-	-	-	1	-	3	-	4	2	-	1
Downy Wkpk	1	+1	-	-	-	-	1	2	-	1	1	-
Horned Lark	1	-	-	10	5	-	-	-	-	-	-	3
Gray Jay	-	-	-	-	-	-	+2	-	5	-	-	-
Blue Jay	-	-	-	-	1	-	1	2	3	1	-	-
B-b Magpie	11	-	48	27	7	15	2	28	34	31	91	47
C Raven	-	-	-	-	-	-	2	-	12	1	-	-
Bl-c Ch'dee	2	-	-	-	-	2	4	6	7	26	9	6
Boreal Ch'de	-	-	-	-	-	-	-	-	10	-	-	-
Wh-br Nut	-	-	-	-	-	-	-	-	-	-	-	-
Red-br Nut	-	-	-	-	-	-	-	-	-	-	-	-
Brown Creep	-	-	-	-	-	-	-	-	2	-	+1	-
Am Robin	-	-	-	-	-	-	-	-	-	-	+1	-
G-c Kinglet	-	-	-	-	-	-	-	-	-	-	-	-
Boh Waxwg	+7	+20	-	-	-	-	6	256	38	2	1	108
Cedar Waxwg	-	-	-	-	-	-	-	7	-	-	30	-
N Shrike	-	-	-	-	-	-	-	-	-	+1	-	-
Starling	-	-	3	-	9	-	-	3	-	-	51	1
House Spar	83	40	189	577	57	50	2	156	14	30	936	98
Eve Grosbk	-	-	-	-	-	-	24	-	2	2	-	-
Pine Grosbk	-	-	-	-	-	-	-	-	7	3	-	-
C Redpoll	-	-	-	-	-	-	-	4	33	+17	-	-
Red Xbill	-	-	-	-	-	-	-	-	-	-	-	-
W-w Xbill	-	-	-	-	-	-	-	-	-	-	-	-
Snow Bunting	63	+50	-	67	1	-	+50	+250	13	11	-	-
Species in Table 4	0	0	0	0	1	0	0	0	0	2	1	0
Ct day sp	12	3	9	8	14	6	9	14	14	16	14	12
Ct per d sp	13	6	9	9	14	6	12	15	14	21	16	12
Ct indiv	208	44	318	756	127	85	45	516	184	129	1416	314

TABLE 3-4

	Nisbet Forest Dec. 31	Outlook Dec. 25	Pike Lake Dec. 30	Prince Albert Dec. 30	Raymore Dec. 27	Regina Dec. 26	Round Lake Dec. 30	St. Walburg Dec. 26	Saskatoon Dec. 26	Scott Dec. 18	Sku11 Creek Dec. 26	Somme Dec. 19
Mallard	-	-	-	-	-	22	1	-	16	-	-	-
C Goldeneye	-	-	-	-	-	-	-	-	80	-	-	-
C Merganser	-	-	-	1	-	-	-	-	+6	-	-	-
Goshawk	-	-	-	-	-	-	-	-	1	1	-	+1
R-leg Hawk	-	-	-	-	-	-	-	-	-	-	-	1
Golden Eagle	-	-	-	-	-	-	-	-	-	-	+1	-
Bald Eagle	-	-	-	-	-	-	+2	-	-	-	1	-
Prairie Falc	-	-	-	-	-	-	-	-	-	-	+1	-
Merlin	-	-	-	-	-	2	-	1	5	-	-	-
Ruff Grouse	1	-	-	1	2	-	5	+1	4	-	-	1
S-t Grouse	-	-	23	+3	8	23	+10	+17	101	-	+33	+31
R-n Pheasant	-	-	1	-	-	-	4	-	4	-	1	-
Gray Partr	-	-	2	-	23	118	25	-	103	65	-	+1
Rock Dove	-	4	-	210	90	473	-	1	1472	99	3	+6
G H Owl	-	-	-	+1	2	4	1	-	2	1	1	1
Snowy Owl	-	1	2	+1	4	25	-	-	2	2	+1	-
Sh-ear Owl	-	-	-	-	-	1	-	-	-	1	-	-
C Flicker	-	-	-	-	-	3	-	-	2	-	-	-
Pileat Wdpkr	-	-	-	-	-	-	-	-	-	-	-	1
Hairy Wdpkr	1	-	2	3	4	-	2	-	10	-	+1	2
Downy Wdpkr	-	-	4	4	3	-	2	-	15	1	3	-
Horned Lark	-	-	-	-	+5	6	-	-	-	-	1	-
Gray Jay	1	1	-	+2	-	-	-	1	-	-	-	1
Blue Jay	-	+1	11	4	1	-	+1	1	33	-	-	4
B-b Magpie	3	-	55	70	81	51	2	6	311	29	35	9
C Raven	4	-	-	80	-	-	-	15	-	-	-	7
Bl-c Ch'dee	27	-	43	13	20	-	8	6	133	7	7	+4
Boreal Ch'de	-	-	-	8	-	-	-	1	-	-	-	3
Wh-br Nut	-	-	-	-	-	-	3	-	1	-	-	-
Red-br Nut	-	-	-	1	-	13	-	-	14	2	-	-
Brown Creep	-	-	-	-	-	3	-	-	-	-	-	-
Am Robin	-	-	3	-	-	3	1	-	2	-	-	-
G-c Kinglet	-	-	-	-	-	-	-	-	2	4	-	-
Boh Waxwg	-	20	88	276	17	1	25	-	1401	194	+75	25
Cedar Waxwg	-	-	-	26	3	-	-	-	17	-	-	-
N Shrike	-	-	-	-	-	-	-	-	1	-	-	-
Starling	-	-	-	36	-	13	-	-	356	18	-	-
House Spar	-	10	121	511	862	2121	25	10	6204	346	83	47
Eve Grosbk	-	-	2	126	-	-	4	-	8	-	-	19
Pine Grosbk	-	-	-	1	-	+1	-	-	1	-	-	-
C Redpoll	-	-	-	+10	-	-	-	1	26	-	3	-
Red Xbill	-	-	-	-	-	15	-	4	31	-	-	-
W-w Xbill	-	-	-	2	-	-	-	-	1	-	-	12
Snow Bunting	-	-	234	31	+10	321	+150	17	5	555	+120	100
Species in Table 4	0	0	0	0	1	2	0	0	9	0	1	2
Ct day sp	6	4	14	19	14	21	14	12	41	15	11	16
Ct per d sp	6	6	14	24	17	22	18	14	42	15	18	22
Ct indiv	37	27	591	1404	1120	4379	108	64	10381	1325	144	235

TABLE 3-5

	Spirit Lake Dec. 23	Spring Valley Dec. 28	Squaw Rapids Dec. 23	Squaw Rapids- Sipanok Jan. 2	Waseca Dec. 26	Waskesiu Dec. 29	Webb-Swift Current Dec. 19	White Bear Dec. 29	Whitebeech Dec. 26	Wolseley Dec. 30	Yorkton Jan. 1, 1980	Wynyard Dec. 27
Mallard	-	-	22	7	-	-	20	-	-	-	-	-
C Goldeneye	-	-	150	42	-	-	-	-	-	-	-	-
C Merganser	-	-	4	2	-	-	-	-	-	-	-	-
Goshawk	+1	-	13	3	+1	-	-	-	-	-	+1	+1
R-leg Hawk	-	-	-	-	-	-	+1	-	-	-	-	-
Golden Eagle	-	1	-	-	-	-	-	-	-	-	-	-
Bald Eagle	-	-	11	2	-	-	-	-	-	-	-	-
Prairie Falc	-	+1	-	-	-	-	-	-	-	-	-	-
Merlin	-	+4	-	-	-	-	-	1	-	-	-	-
Ruff Grouse	7	-	4	1	12	+1	-	-	+1	2	-	-
S-t Grouse	1	49	10	-	8	-	8	12	-	20	+1	6
R-n Pheasant	-	-	-	-	-	-	+1	1	-	-	-	-
Gray Partr	+3	26	-	-	+10	-	5	17	+6	-	-	-
Rock Dove	+18	42	-	-	-	-	81	90	-	-	+1	234
G H Owl	1	+2	1	-	2	-	-	1	-	-	+1	-
Snowy Owl	-	3	1	-	-	-	2	-	-	-	1	-
Sh-ear Owl	-	-	-	-	-	-	-	1	-	-	-	-
C Flicker	-	-	-	-	-	-	-	-	-	-	-	-
Pileat Wdpkr	+2	-	3	-	-	-	-	-	+1	-	-	-
Hairy Wdpkr	6	-	18	-	2	-	-	-	2	-	-	1
Downy Wdpkr	7	-	2	1	+1	-	-	-	1	1	-	-
Horned Lark	-	+67	1	-	-	-	-	-	-	-	-	-
Gray Jay	-	-	25	-	-	4	-	-	-	-	-	-
Blue Jay	1	-	3	-	6	-	-	-	-	-	-	1
B-b Magpie	24	16	8	1	6	-	43	23	+4	4	4	10
C Raven	+1	-	148	27	1	5	-	-	6	-	-	-
Bl-c Ch'dee	24	-	24	2	12	8	-	-	7	2	-	4
Boreal Ch'de	-	-	6	-	-	-	-	-	-	-	-	-
Wh-br Nut	1	-	-	-	-	-	-	-	-	-	-	-
Red-br Nut	-	-	-	-	-	-	-	-	-	-	-	-
Brown Creep	-	-	2	-	+1	-	-	-	-	-	-	-
Am Robin	-	-	-	-	-	-	-	-	-	-	-	-
G-c Kinglet	-	-	6	-	-	-	-	-	-	-	-	-
Boh Waxwg	1	57	-	-	500	-	200	-	+200	-	-	-
Cedar Waxwg	-	-	-	-	-	-	-	-	-	-	-	-
N Shrike	-	-	2	-	-	-	-	-	-	-	-	-
Starling	-	2	-	-	-	-	2	9	-	-	+6	-
House Spar	120	800	-	-	-	-	124	150	+25	100	300	230
Eve Grosbk	2	-	5	-	+14	-	-	-	30	1	-	9
Pine Grosbk	2	-	7	-	-	-	-	-	-	-	-	-
C Redpoll	-	+8	13	12	-	-	-	-	-	-	-	-
Red Xbill	-	-	-	-	-	-	-	-	+1	-	-	-
W-w Xbill	-	-	13	-	-	-	-	-	-	-	2	-
Snow Bunting	3	83	27	-	400	-	2	-	+250	-	4	1
Species in Table 4	0	1	11	2	0	1	1	0	0	1	0	0
Ct day sp	14	10	35	13	10	4	10	10	5	8	5	9
Ct perd sp	19	16	35	13	15	5	13	10	13	8	10	10
Ct indiv	200	1079	538	103	949	18	487	305	46	131	311	496

TABLE 4 — Species Seen in Three or Fewer Localities

Western Grebe: Gardiner Dam, 1.
 Canada Goose: Gardiner Dam, 28; Regina, 1160; Saskatoon, 1.
 Snow Goose: Saskatoon, 1.
 Gadwall: Gardiner Dam, 1.
 Pintail: Saskatoon, 4; Squaw Rapids, 1.
 American Wigeon: Gardiner Dam, 1.
 Canvasback: Gardiner Dam, 2.
 Lesser Scaup: Gardiner Dam, 1; Saskatoon, 2.
 Bufflehead: Gardiner Dam, 1.
 Hooded Merganser: Gardiner Dam, 2.
 Red-breasted Merganser: Gardiner Dam, 1.
 Duck Spp: Eastend (map No. 10), 2.
 Sharp-shinned Hawk: Fort Walsh, 1; Saskatoon, 1.
 Cooper's Hawk: Leader (map no. 28), 1.
 Eagle Spp: Saskatoon, 1; Wolseley, 1.
 Gyrfalcon: Elbow, 1; Squaw Rapids, 1.
 Spruce Grouse: Squaw Rapids, 1; Squaw Rapids-Sipanok Channel, 1; Waskesiu, 1.
 Sage Grouse: Fort Walsh, +2; Govenlock, 106.
 Common Snipe: Fort Walsh, 1.
 Glaucous Gull: Gardiner Dam, 3.
 Iceland Gull: Squaw Rapids, 1.
 Hawk Owl: Squaw Rapids, 1; Squaw Rapids-Sipanok Channel, 2.
 Great Gray Owl: Squaw Rapids, 1.
 Boreal Owl: Maidstone Bridge, +1.
 Saw-whet Owl: Webb-Swift Current, +1.
 Owl Spp: Squaw Rapids, 1.
 Black-backed Three-toed Woodpecker: Somme, +1; Squaw Rapids, 2.
 Northern Three-toed Woodpecker: Fort Walsh, 1; Somme, 2; Squaw Rapids, 1.
 Woodpecker Spp: Fort Walsh, 3; Squaw Rapids, 5.
 Common Crow: Moose Jaw, 3.

Mountain Bluebird: Eastend (map No. 10), +8.
 Townsend Solitaire: Fort Walsh, +1.
 Redwinged Blackbird: Regina, 1.
 Rusty Blackbird: Fort Walsh, 1; Spring Valley, +1.
 Blackbird Spp: Eastend (map No. 9), 7.
 Gray-crowned Rosy Finch: Fort Walsh, 22.
 Hoary Redpoll: Maidstone Bridge, +2.
 Redpoll Spp: Fort Walsh, 2; Raymore, +1; Squaw Rapids, 191.
 Pine Siskin: Saskatoon, 5.
 American Goldfinch: Saskatoon, 1.
 Dark-eyed Junco: Eastend (map No. 9), 1; Fort Walsh, 3.
 Tree Sparrow: Eastend (map No. 9), 2; Fort Walsh, 43; Skull Creek, 6.
 Harris' Sparrow: Saskatoon, 1.

TOGO, Dec. 20

Again interested people with bird feeders within a 11.5 km radius of Togo shared the 3,000 lbs. of sunflower seeds brought from southern Manitoba by Cusie May, and carefully recorded all observations at their feeders from 20 Dec. to 1 Jan. The best day was 20 Dec. The following species were recorded: Sharp-tailed grouse, 51; Hairy Woodpecker, 2; Downy Woodpecker, 2; Blue Jay, 1; Black-billed Magpie, 10; Common Raven, 12; Black-capped Chickadee, 29; Boreal Chickadee, 3; Bohemian Waxwing, 58; House Sparrow, 91; Evening Grosbeak, 144; Pine Siskin, 6. Additional species seen during the count period included Ruffed Grouse, 8, Dec. 27; Gray Partridge, 9, Dec. 25; Common Redpoll, 2, Dec. 21; Dark-eyed Junco, 3, Dec. 25. Observers were: Bill and Gwen Appel, Bert and Doris Franklin, Phil and Jean Hern, Vic and Olga Hilderman, Bill and Vi

Holiday, Walter and Ethel Krupp, Albert and Tillie Lowenberger, Cusie and Wanda May (compiler), Dick and Mary Smith, Howard and Donelda Wilson, Orville and Elaine Wilson.

We regret this count was too late to enter onto the charts, but are very pleased to have received it so the information is recorded for future use.

FORT SMITH, NORTHWEST TERRITORIES

DATE: 26 December, 1979.

WEATHER: Overcast with sunny patches; temperature minus one degree celsius, establishing a new high for the area, previous record was minus six degrees celsius in 1959; snow depth approximately 25 cm; daylight hours 0900 hrs. to 1600 hrs.

ROUTES COVERED: Fort Smith west along NWT Highway 5 to the Foxhole Road intersection; Fort Smith south along the Pine Lake Road to Salt River; Fort Smith east along the Hay Camp Road to Fort Fitzgerald. 150 km in 3.5 hrs.

BIRDS SIGHTED: Common Raven, 175; Gray Jay, 22; Redpoll sp., 93; Downy Woodpecker, 2; Hairy Woodpecker, 2; Boreal Chickadee, 13; Black-Capped Chickadee, 14; Pine Grosbeak, 26; Pine Siskin, 20; White-Winged Crossbill, 16; House Sparrow, 2; Goshawk, 1; Dark-Eyed Junco, 2; Bohemian Waxwing, 1. Add Ruffed Grouse, 1; Spruce Grouse, 1; December 27.

SUMMARY: 16 species, 391 individuals (new record!).

CONTRIBUTORS: Ian Church, Nancy Church; Marylyn Anions; Jueneva



Common Redpoll. Fred W. Lahrman

Green, Jaida Green; Gisele Samoila, Dwight Krause; Don Brannigan, Isabel Brannigan and Tommy Brannigan; Harold Pankratz, Barb Pankratz; Dr. Martha Jalkotzy; Bernie Lieff; Dan Graham (compiler) and Linda Graham.

YELLOWKNIFE, NORTHWEST TERRITORIES

23 December 1979; 139 km by car and 30 km on foot in 21.6 party hours; temperature -22°C ; wind nil; overcast, with snow showers in morning; 4 species, 577 individuals.

Willow Ptarmigan, 51; Gray Jay, 3; Common Raven 493; House Sparrow, 30. ADD: Rock Dove, 3, 28 December.

JoAnne Allison, Wayne Bryant; Tom Dafoe; Doug and Sandra Desjardins; Hannah Diamond; Bob and Kuluk Gamble; Carol, Troy, and George Gibson; Jonni Graves; Lee and Andrew Harding; Doug Heard; Don Karasiuk (compiler), Kathy Southworth; John Stephenson; Wendy Thompson.

SOME BIRDS OF NORTHEASTERN MANITOBA — 1975-1977

MARGARET A. McLAREN and WAYNE E. RENAUD, LGL LTD. — environmental research associates, 44 Eglinton Ave. W., Toronto, Ontario, M4R 1A1.

The bird fauna of the Churchill region, Manitoba, has been well documented, and most recently summarized by Jehl and Smith, and by Cooke *et al.*⁷⁻¹ However, inland localities in northeastern Manitoba have been less intensively studied, probably because of their relative inaccessibility. This paper presents observations of birds that were near or beyond the known limits of breeding ranges in inland northeastern Manitoba and the Churchill area. The observations were made during studies of the distribution and abundance of birds along the proposed Polar Gas Project pipeline route;⁹⁻¹⁰ most records were obtained during the breeding season.

Some of the inland localities included in our study area have been visited previously by Preble, Davis, Gillespie, and Rising and Schueler.¹⁴⁻²⁻⁴⁻¹⁵ Bird lists are also available for adjacent areas to the west and south.⁵⁻⁸⁻¹²⁻¹⁷

The observations reported here include both incidental sightings and sightings that were made during systematic aerial and ground surveys. Except for those localities listed as at or near Churchill, all locations mentioned in the text were between 60 and 150 km from Hudson Bay. Geographic features mentioned in the text are shown in Figure 1.

GREAT BLUE HERON. The most northerly record was one near Gillam, 21 June 1977. A colony of 5-10 pairs nesting on an island in the

Stull River at 54° 48' N. Lat. on 18 June 1977 was about 200 km north of the known breeding range;⁶ however, our discovery of four other colonies in adjacent Ontario (Morden Lake, North Caribou Lake, Makoop Lake and near Two Rivers Lake) suggest that this colony is not beyond the regular nesting range of the species.

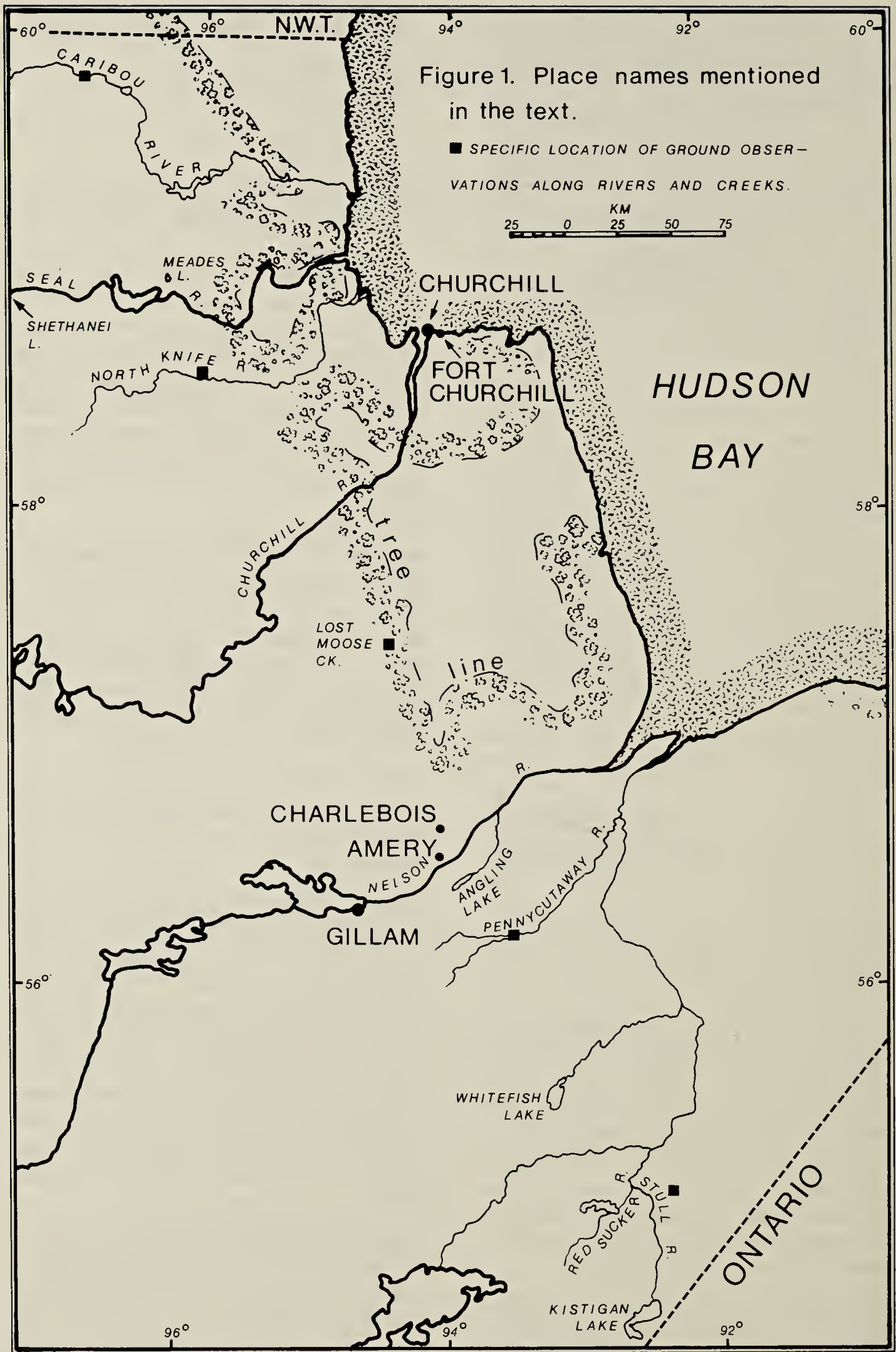
HARLEQUIN DUCK. Three females (studied for 30 min. at distances of 30 m) at the mouth of the Churchill River, 12 September 1977. There are three previous reports for the area³⁻¹¹⁻¹³⁻¹⁶; the last of these records (three females at Cape Merry, near Churchill, on 2 July 1977) may be the same birds that we observed.

WHITE-WINGED SCOTER. An unusually large concentration of 2,500 along the coast at Fort Churchill, 30 June 1977.

BLACK SCOTER. Widely distributed in groups of up to 20 on tundra ponds, lakes and rivers between the Churchill River and the N.W.T. border, 25-27 June 1977. An unusually large concentration of 6,000 along the Hudson Bay coast at Fort Churchill, 30 June 1977. A very tame female on a pond near the North Knife River acted as though a nest or brood was located nearby, 27 June 1977.

SHARP-SHINNED HAWK. One north of the Churchill River, 25 June 1977, was about 500 km north of the known breeding range.⁶

GOLDEN EAGLE. One over the North Knife River, 22 May 1976; and two





Osprey.

Fred W. Lahrman

over the Stull River, 29 May 1976.

OSPREY. Noted regularly north to the Seal River where six were seen between Shethanei Lake and the coast on 24-25 June 1977. The only active nest found in northeastern Manitoba was at Whitefish Lake, 18 June 1977.

SHARP-TAILED GROUSE. One at Whitefish Lake, 15 June 1977. An adult with three chicks at Amery, and four adults near Charlebois, 23 June 1977.

SANDHILL CRANE. Noted on four occasions during the breeding season. One at Amery, 23 June 1977; single pairs near the Stull River, 17 June 1977; near the Red Sucker River, 18 June 1977; and at Angling Lake, 21 June 1977.

AMERICAN COOT. Two adults with four young at Churchill, 30 June 1977. There are four previous records, including one breeding record, for the Churchill area.⁷

WHIMBREL. Nine scattered individuals and pairs on tundra near

the Caribou River, 26 June 1977; their agitated behaviour suggested nesting.

SHORT-BILLED DOWITCHER. Observed in open muskegs near Angling Lake, 20 June 1977 (two displaying); and near the North Knife River, 27 June 1977 (three displaying).

STILT SANDPIPER. Displaying and possibly breeding in open muskegs near the Caribou River, 26 June 1977 (1 individual); and near the North Knife River, 27 June 1977 (2).

HUDSONIAN GODWIT. Two chasing and displaying over open muskeg near Angling Lake, 20 June 1977. One near Caribou River, 26 June 1977. Both localities are outside the known breeding range.⁶

RING-BILLED GULL. Nine at Gillam garbage dump, 20 May 1976. One at Churchill, 16 August 1976; at least four previous records for the Churchill area.^{3 7 13} A group of four on the Nelson River downstream from Gillam, 22 September 1976.

MOURNING DOVE. One at Gillam, 23 June 1977.

BELTED KINGFISHER. Singles and pairs recorded at Pennycutaway River, 21 June 1977; at Gillam, 22 June 1977; and along Lost Moose Creek, 22 June 1977. Two adults at a nest hole, Gillam, 21-23 May 1976. These observations are 100-400 km north of the known breeding range.⁶

BANK SWALLOW. A nesting colony of 75 birds, Gillam, late June 1976.

RED-BREASTED NUTHATCH. Recorded at Gillam, 22 June 1977; and at Meades Lake, 25 June 1977. The latter locality is 600 km north of the known breeding range.⁶

WINTER WREN. One singing male at Pennycutaway River, 21 June 1977. This locality is 400 km north of the known breeding range.⁶

NORTHERN MOCKINGBIRD. One at Churchill, 16 June 1975. There have been three previous records for the Churchill area.^{1 7}

BROWN THRASHER. One near Churchill, 13 and 16 June 1976; the two sightings were 10 km apart and possibly of different birds. There are five previous records for the Churchill area.^{1 7 13}

SWAINSON'S THRUSH. One feeding along the Goose Creek Road near Churchill, 14 June 1975; there are four previous records for the Churchill area.^{1 7} One singing male near Meades Lake, 26 June 1977, was about 200 km north of the known breeding range.⁶

GRAY-CHEEKED THRUSH. One singing male near Charlebois, 23 June 1977, was on the edge of the known breeding range.⁶

WATER PIPIT. Nest with four eggs at Meades Lake, 27 June 1977; probably first nesting record for an inland locality in Manitoba.

SOLITARY VIREO. One at Gillam, 28

May 1976. There are two previous records for Gillam^{4 15}; Gillespie assumed that the species was breeding.⁴

MAGNOLIA WARBLER. Two males at Gillam, 20 May 1976. Several singing males near Stull River, 17 June 1977. These localities are 150+ km north of the known breeding range,⁶ but this species has been previously reported from Gillam and Churchill.^{4 15 7}

BAY-BREASTED WARBLER. One singing male at Stull River, 17 June 1977, was 150 km north of the known breeding range.⁶

OVENBIRD. One singing male at Stull River, 17 June 1977, was 150 km north of the known breeding range.⁶

BROWN-HEADED COWBIRD. Seen at Churchill, 10 June 1975 (one male) and 27 June 1976 (two males). Listed as a "rare summer visitor" in the Churchill area.⁷

WESTERN MEADOWLARK. One at Churchill, 28 June 1977. Listed as a "rare and irregular summer visitor" to the Churchill area.⁷

PINE SISKIN. Recorded at Charlebois, 23 June 1977; and at Gillam, 22 June 1977. The latter locality is 500 km north of the known breeding range.⁶

SHARP-TAILED SPARROW. One heard singing in a sedge marsh at Akudlik near Churchill, 9 June 1975. Two previous records at this same marsh are the only other records for the Churchill area.⁷

CHIPPING SPARROW. One seen at Fort Churchill, 9 June 1975. Regularly seen and heard singing throughout the study area north to the North Knife River, June 1977. This latter locality is about 150 km north of the known breeding range.⁶

CLAY-COLORED SPARROW. One singing male at Gillam, 22 June 1977,

was 600 km north of the known breeding range.⁶

SMITH'S LONGSPUR. Three singing males recorded in tundra near the Caribou River, 27 June 1977. Extent of breeding range away from the Hudson Bay coast is poorly known.

Acknowledgements

The data presented here were collected as part of a more extensive study of birds in Ontario and Manitoba carried out by LGL Ltd. under contract to the Polar Gas Project, who provided excellent logistic support. Studies in 1975 were undertaken by R. Davis, D. Fidler, C. Holdsworth, D. Kuch, P. McLaren and W. Renaud; in 1976 by L. Patterson, M. McLaren and D. Troy; and in 1977 by the writers, C. Holdsworth, G. Johnston, P. McLaren and E. Nol — all of LGL Ltd. We thank R. Davis, L. Patterson, P. McLaren and W. J. Richardson of LGL Ltd.; and J. Riddick and B. Ross of Polar Gas Project for their comments on this paper.

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¹⁶WALTON, K. and D. E. MacLACHLAN. 1978. Third record of Harlequin Duck at Churchill, Manitoba. *Blue Jay* 36:45.

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McKAY'S BUNTING AT REGINA

FRANK BRAZIER, 2657 Cameron Street, Regina, Saskatchewan, S4T 2W5.

To my knowledge there never has been a report for Canada of McKay's Bunting. The species breeds on only two small islands in the Bering Sea, Hall Is. and St. Matthew Is., about 230 miles west of the Alaskan coast, and it winters in western Alaska south to Bristol Bay.⁷ There is a record of one on St. Paul Island,² and I found a mention of one in winter at Adak in the Aleutian Islands in "American Birds" which had the editorial comment that this extended the known winter range by 600 miles. Thus the species has a remarkably circumscribed range and I would no more expect to see one in Regina than I would expect to see a Puffin on Wascana Lake!

On 2 October, 1978, at 14:45 I drove eastwards along 19th Avenue in Regina, turned north on Robinson Street, and scattered a few small birds off the pavement, House Sparrows, Dark-eyed Juncos and a single Snow Bunting (I believed then). The latter flew across the nose of the car and settled on a branch of a small leafless tree growing on the west side of the sidewalk. As it is unusual to find Snow Buntings so far inside the city, and as it was early for them, I stopped to take a look. At the most, I estimate the bird was 12 feet from me, much too close for binoculars, even if I had a pair with me.

The visibility was very good at that time. There had been a recent shower, the sun was obscured by a high overcast but it was still a bright day. I could clearly see the bird which was perched crosswise so I noted that it was a chunky one, pure white,

with a black eye, light coloured, heavy, finch-like bill, and black primaries — exactly what one would expect a Snow Bunting to show at that angle of viewing. It then switched around on its perch, paused, and flew back towards the asphalt pavement in front of me but instead of landing it flew northwards for about 100 feet where it joined some House Sparrows foraging in low, weedy growth.

As it flew away from me low over the pavement I was struck by the effect — it was a pure white bird and its wings and body formed a spectacular "flying white cross" — an unforgettable and beautiful sight! As it mingled with the House Sparrows I moved forward until I was parked a few feet from the group where I could clearly see that my bunting was larger than the Sparrows, at least as much as one inch longer. Being on my way to the bank, which closed at 15:00, I reluctantly continued on my way. As I moved off the birds all took wing, and I never saw my bunting again although I kept an eye open for it for several days.

Still musing on the odd pure white plumage of my Snow Bunting (as I still supposed) when I returned home I consulted Bent's treatise on the Snow Buntings, particularly the "Plumage and Molt" section of *Plectrophenax nivalis nivalis*, the nominate race.¹ There is no comparable heading under *Plectrophenax nivalis townsendi*, Pribilof Snow Bunting, the other subspecies, but the account opens with the sentence: "This subspecies is identical in color to the nominate race and differs only in

size . . .” Nowhere could I find any plumage that is pure white on all the upper parts, all plumages having dark backs. This agreed with the description and pictures in Peterson;⁴ Udvardy;¹⁰ Pough;⁶ Reed;⁸ Robbins *et al.*;⁹ Heinzel *et al.*;³ Peterson *et al.*;⁵ so I concluded that my bird was not a Snow Bunting at all.

Pough and the five titles above all have pictures of McKay’s Bunting with brief descriptions of plumage.⁷ These convinced me that the bird I saw was an adult male of that species.

I was unable to reach anyone else to alert until the next day when I described the bird to Mr. Fred Lahrman of the staff of Saskatchewan Museum of Natural History who suggested it could have been an albino sparrow of some kind. I also sent the description to Dr. Robert W. Nero in Winnipeg who concurred with Mr. Lahrman. The difficulty here is my inability to transfer in words the precise image of the bird I saw to the minds of Dr. Nero and Mr. Lahrman. I am sure that had they been present neither would have entertained the possibility of albino sparrow. It was a large, chunky bunting, the wrong shape and size for any of the larger sparrows. Nor can I see any albino sparrow developing the black primaries which I clearly saw as it was perched and as it flew from the tree.

Acting on the suggestion of Dr. Nero I wrote to Mr. H. W. R. Copland, Assistant Curator of The Manitoba Museum of Man and Nature in Winnipeg, where there is a good series of skins of McKay’s Bunting. Mr. Copland very considerably took the time and trouble to describe the 18 skins there and, while he concluded: “It is difficult to say for certain the bird you observed was a McKay’s Bunting. There are plumage variations in the small number of

specimens we have here. Therefore there could be still other individuals in the wild which would agree more with your description. However, all our specimens show rust on the head.” Nevertheless, one of the two adult male skins described accurately reflects the bird I saw. True, that skin has “. . . a tinge of rust on each side of the upper breast”, which I did not notice which is understandable under the circumstances. In this connection it is interesting to find that Gabrielson, Burroughs, Keeler and Brandt (all cited by Bent) each described McKay’s Bunting as a pure white bird when visiting the breeding islands.

In view of the fact that the bird I saw on 2 October 1978 was possibly a first for Canada — indeed, for North America beyond Alaska — I was naturally diffident in offering my unsubstantiated sighting for publication until I had Dr. Dennis Paulson’s record for two birds, then one, from 17 December 1978 to 5 March, 1979 near Seattle. If McKay’s Bunting can turn up at Ocean Shores, it can also turn up in Regina. I believe that important sightings, even though unconfirmed, should be made known to the birding fraternity so that possible corroborations by others, at different times and at different places, may be forthcoming.

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NINETEENTH ANNUAL NESTBOX REPORT FROM BRANDON, MANITOBA

MRS. JOHN LANE, 1701 Lorne Avenue, Brandon, Manitoba, R7A 0W2, and MAMIE McCOWAN, BARBARA ROBINSON, HAZEL PATMORE and LINDA MUZYKA.

In 1979 the nestbox project started by the late Dr. John Lane was again carried on by the "Friends of the Bluebirds". This group held two meetings at the home of the coordinator, Mrs. John Lane.

At the spring meeting, plans were made for the 1979 season. Mrs. Lane welcomed the new members who had responded to an article "Bluebirds in South Western Manitoba", published in the March issue of "This Is Westman", and to slide presentations. Among these new Friends were young families, senior citizens and the Forrest 4-H Girls' Conservation Group. Some new members have made nest boxes using the Junior Birders' pattern. At this meeting Mrs. Lane also gave a report on the first Annual Meeting of the North American Bluebird Society held in Maryland, U.S.A., 11-12

November 1978. During the fall meeting, reports were presented and experiences discussed.

In 1979, 170 nest boxes were set out, bringing the total since the start of the project in 1959 to 5,010. It will be understood that a goodly number of this total are not now in place due to the effects of time, weather and interference. A supply of boxes for replacements and new nestlines was maintained by John Plum and Walter Forsyth, who merit much thanks.

Mr. and Mrs. Perry Hopkins, Hartney area, filled out the North American Bluebird Society's "23 nest record data". The Hopkins also reported two adjacent boxes infested by black flies (*Simulium venustum*). In these boxes a total of 11 young Mountain Bluebirds were found dead.

TABLE 1 — Occupancy in Nest Boxes, 1979.

<i>Occupant</i>	<i>Number of Nestings</i>
Mountain Bluebirds	459
Eastern Bluebirds	26
Bluebirds not identified as to species	14
Tree Swallows	773
House Sparrows	99
House Wrens	65
Mice	9
Squirrels	8
Chipmunk	1

Noticeable numbers of dead bluebirds and Tree Swallows were noted through the season by various observers. It has been suggested that the extremely hot weather was a factor in this high mortality.

Mr. Jim Spear, Russell, deplored the hot dry summer season but also in his report commented on the spring:

“The spring was late and cold and I feel quite a few birds did not survive the cold. On May 12, many nest boxes were just above the water line and one was covered with snow. It was a spring to remember.”

Counting his maintenance and monitoring of 300 nest boxes in 1979, Mr. Spear says he has travelled 1,000 miles.

Eastern Bluebirds were recorded by only four observers: Barbara Robinson - 11 nestings; Mr. and Mrs. Perry Hopkins - 13 nestings; J. B. Thomas - one nesting, and Peter Sawatzky - one nesting. Data since the project was started show a substantial decrease in the use of our nest boxes by Eastern Bluebirds the past five years.

Barbara Robinson on the South Shilo line reported some unusual Mountain Bluebird nests. Nest box No. 238 had a built-over nest. On 10 June the lower nest had seven eggs. On 19 July the upper nest had five

eggs. On 3 September, while cleaning out nest box No. 238, Barbara found the lower nest had four unhatched eggs and the upper nest had all five eggs unhatched. Both these nests were laced with Cedar Waxwing feathers. Also Barbara observed that in nest box No. 863 a Mountain Bluebird had built a very neat nest with plant down on top and sides and a few small feathers woven in with the grass.

On 22 September, during fall maintenance of her nest boxes at the western junction of No. 351 highway and the Trans Canada highway, Barbara was delighted to see a flock of 25 Eastern Bluebirds in migration. Later, on the same day, between Tapley Siding and Camp Hughes on the C.P.R., Barbara saw several flocks of Mountain Bluebirds totalling 60 in numbers.

Substantiating the observation that new nestlines are usually occupied by Tree Swallows in the first year, 1979 reports show that the Forrest 4-H Girls' Conservation Group set up a new nestline of 19 boxes. Tree Swallows occupied 18 of them and one was vacant. Also, Dr. R. Rounds and family set out a new line of 24 boxes near Martinville, northeast of Brandon Hills. Twenty-two boxes were occupied by Tree Swallows and one by House Sparrows; one was vacant.



Mountain Bluebird.

Robert J. Long

This report was made possible through the work of the "Friends of the Bluebirds" from Boissevan — Mr. and Mrs. W. Moncur, Charles Reid; Carberry — Mr. and Mrs. Bob Anderson and family; Erickson — Mr. and Mrs. Keith Johnston, Melvin and Shirley, Mr. and Mrs. Arthur Koping; Forrest — Mrs. G. S. Parsons and 4-H Girls Glenda Parsons, Sharon Hansen and Melanie Miller; Glenboro — Peter Sawatzky; Hartney — Mrs. and Mrs. Perry Hopkins, Mr. and Mrs. J. B. Thomas; Headingly — Mr. and Mrs. Carl Gompf, Jim and Jean Robson; Killarney — Mr. and Mrs. Lloyd Powell, Ruth Goerzen, Mrs. Vera Turner; Miami — Mr. and Mrs. Dale Robinson; Miniota — Mr. and Mrs. Jack Hanlin and grandchildren; Napinka — George T. Watson; Neepawa — Mrs. Fred Murray, Don and Ken, George Mossop; Newdale — Mr. and Mrs. Roy Everitt, Mr. and Mrs. Oran English; Ninette — Mr. and

Mrs. Monroe Wright; Oak Lake — Rob and Heather Penner, Cathy and Winnie Sawatzky; Russell — Mr. and Mrs. Jim Spear; Shoal Lake — Cliff Findlay; Souris — Mr. and Mrs. Art Michie; Tilston — E. J. Jones; Virden — Mr. and Mrs. John Turton; Wawanesa — Mr. and Mrs. Ed Robinson; Winnipeg — Robert Burch; Brandon — Mrs. Barbara Robinson, John and Marion Robinson, Mamie, Helen and Margaret McCowan, Dick and Hazel Patmore, Daisy and Muriel Patmore, Barbara Robertson, Dr. and Mrs. Richard Rounds and family, Mr. John Plum, Mr. W. Forsyth, Linda Muzyka, Marlene Brechka, David Randall, Ken James, Ken Leslie, Betty Shankland, May Tucker, Mrs. John Lane and Junior Birders Steven and Martin McFarlane, David Senchuk, Peter and Stephen Kines, Sean Black and David Voorhis.

MOUNTAIN PLOVER OBSERVATION NEAR VAL MARIE, SASKATCHEWAN

B. PEART, Canadian Wildlife Service, P.O. Box 10, Webb, Saskatchewan, S0N 2X0, and J. G. WOODS, Parks Canada, Glacier and Mount Revelstoke National Parks, P.O. Box 350, Revelstoke, British Columbia, V0E 2S0.

On 22 September, 1977, the authors were hiking in the proposed Grassland National Park area near Val Marie, Saskatchewan. During our visit we positively identified eight Mountain Plovers, just east of the monument at the main prairie dog colony. At that time we did not realize the rarity of the species in Canada and hence the significance of our observations. P. S. Taylor, Canadian Wildlife Service, Saskatoon, suggested this note be written.

There are few records of Mountain Plover in Canada and all authentic reports are within the last 40 years. Bent wrote in 1928 that "this bird is unknown from Canada".¹ Godfrey terms the bird "a rare summer visitor" and gives two sightings, one at Bracken, Saskatchewan, on 5 June 1939, approximately 30 kilometres west of our observation.² Salt and Salt list only two sightings of this bird for Alberta.³ A breeding pair of Mountain Plover was located on the Milk River, Alberta, in May 1979 by Norbert Kondla.⁴

John and I had sat down in the prairie dog colony for lunch and had observed these eight birds for 10 minutes from about 250 metres, first thinking they were Horned Larks. As we finished lunch, we looked at them through binoculars, noticed they were too pale for Horned Larks and walked toward them. At about 100 metres, we studied them for 10 more minutes and were convinced they

were Mountain Plovers. The longer legs and slightly smaller size than a Horned Lark and the lighter colour than a Killdeer were evident. No definite dark markings other than the dark line from bill to eye and paler white-tipped tail feathers confirmed the sighting for us.

The Mountain Plover is a bird of the native grasslands and has been forced by man into the more remote regions of the plains. Although a more common bird in the prairie areas of the United States, its numbers have been greatly reduced due to loss of habitat. To John and I the sightings of these eight birds reinforces the need to preserve intact large areas of native grassland. To quote Godfrey: "a bird of the dry short-grass plains of the United States, it is expected in Canada only in the southern parts of the Prairie Provinces".

¹BENT, A. C. 1929. Life histories of North American shore birds. Part II. Smiths. Inst. U.S. Nat. Mus. Bull. 142 (1962 Dover edition).

²GODFREY, W. E. 1966. The birds of Canada. Nat. Mus. Canada, Bull. 203.

³SALT, W. R. and J. R. SALT. 1976. The birds of Alberta. Hurtig, Edmonton.

⁴GOLLOP, J. B. 1979. Prairie Provinces Region (Spring migration). American Birds 33(5):781-782.

FALL CROW ROOSTS IN RESIDENTIAL SASKATOON

C. STUART HOUSTON, 863 University Drive, Saskatoon, Saskatchewan, S7N 0J8.

The Common Crow began nesting along residential streets of Saskatoon about 1968.¹ The early nests were well hidden in large spruce trees, but in June 1978 I walked twice each day beneath a successful nest only 8 m above the sidewalk in the "900" block of University Drive. It caused an unmistakable splash of "whitewash" on the sidewalk, and on looking directly up one could see the three young sitting on the edge of the nest. Crows have increased since 1968 and now there is at least one resident pair per city block, within a few blocks of the river. They have become one of the commonest species seen in my twice daily walk from my home to the University Hospital, half a mile distant, from early April through July.

For years, fall congregations of crows have assembled along the river south of Saskatoon, just outside the city limits. In 1977, Sandra and Tony Johns found flocks of 2,000 on 4 and 5 September at Wildwood Golf Course well away from the river on the eastern city limits, and this flock increased to 6,000 on 6 September.²

In 1978, crows were first reported flocking in residential areas of Saskatoon when Muriel Galloway sighted more than 120 at the 25th Street bridge at 21:00 on 11 August, and Pat O'Neil at 1125 Elliott Street, just two city blocks to the southeast, recorded 100 on 12 August and 70 on 13 August, decreasing to 16, 20 and 20 crows on the 14th, 19th and 20th days of the month, respectively, and

only two or three each day in September.³

In 1979, while walking home from work, I encountered much larger groups of crows than ever before. On 2 October at 18:30, I counted over 200 crows gathered in the trees near the University's memorial gates, just south of the President's residence. On 3 October, they were just beginning to gather at 18:10, with 14 already roosting in the same trees and stragglers flying across the residential areas of the city to join them. On 4 October, there was already a noisy flock in the trees at 18:28, while 46 more came from the south in the next 60 seconds, five in the subsequent minute and over 100 between 18:30 and 18:31. On 5 October, the crows changed their area of congregation one block south and one block east, over the intersection of University Drive and Clarence Avenue, with 50 circling there at 18:28.

Meanwhile about 7:00, Mary Houston while out jogging would see flocks of 40 to 100 crows leaving their roost and flying west over the river near the 25th Street bridge.

On 9 October, the Tuesday after the Thanksgiving holiday weekend, the crows were halfway between Clarence Avenue and the University gates, roosting at the corner of University Drive and McKinnon Avenue, just a block south of the memorial gates, and one block east of the 25th Street bridge. Here

counted 96 crows roosting in five trees, and another 60 circling overhead as I passed at 18:11.

Crows are no longer shot at within the city limits as stragglers undoubtedly were forty years ago. Probably residential areas and the trees on the adjacent University grounds offer a very safe place for their fall congregations. I might have learned much more about them had I not been hurrying home for supper, and I am not at all sure that their

raucous cawings are appreciated by the citizens of Saskatoon. Further, small songbirds seem less conspicuous when the crows are out in force.

¹HOUSTON, C. S. 1977. Changing patterns of Corvidae on the prairies. *Blue Jay* 35:149-156.

²O'NEIL, P. 1977. Saskatoon Field Notes 23:10.

³O'NEIL, P. 1978. Saskatoon Field Notes 27:11.



Badger. Lorne Scott



Bonaparte's Gull habitat north of Maidstone, Saskatchewan.

Wayne C. Harris

ATYPICAL NEST OF BONAPARTE'S GULL

S. M. LAMONT, Box 994, Prince Albert, Saskatchewan, S6V 5S5.

Most authorities seem to agree that nests of the Bonaparte's Gull are made of sticks and twigs, lined with grasses and usually placed above the ground in the branches of spruce trees.^{1 2} In Saskatchewan this species seems to be most common along creeks and clear muskegs in the forest, particularly so in the western part of the province. There are a few reports of nesting south of the forest limits and the range of spruce in the prairie region. Early reports of breeding Bonaparte's Gulls on large prairie lakes are believed to have resulted from an error made by Raine⁴ who was subsequently quoted by Thompson⁶ and Macoun.³ (C. S. Houston, pers.

comm.).

In 1930 and 1931 R. D. Symons noted apparently breeding birds at Lamotte's Swamp near Jackfish Lake, Saskatchewan. This led to his discovery in 1932 of a Bonaparte's Gull nest made of dry reeds placed on matted reed clumps above the water in the marsh. It was also apparently the first known nest not in a tree. Symons and F. G. Bard visited the site in 1935 and noted that nests were lined with fine grasses and some small twigs.⁵ This discovery of marsh nesting Bonaparte's Gulls led to a series of articles by several authors in the *Blue Jay* from 1956 to 1969.

One other possible nesting south of the forest was a group of nine young Bonaparte's Gulls being fed by adults on a small lake in the Touchwood Hills south of Punnichy on the Gordon Indian Reserve (the equivalent of 3-27A-16-W2). These young were full grown or very nearly so, but were never seen flying. Occasional summering birds occur in this area as indicated by five winter plumage adults 18 June 1976 at Kandahar Beach on Big Quill Lake (W. C. Harris, pers. comm.).

On 10 June 1978 a most unusual gull nest site was visited. Discovered earlier by Dan and Tom Lamont, the nest had been under observation for some time. It was built on the mudflat of a temporary pothole (about 25 m by 8 m in size) in a cultivated field on NW 7-50-23-W3 (15 miles north and three west of Maidstone, Sask.). There was no vegetative cover since the slough had been cultivated the previous season and the surrounding field, up to about 3 m from the water was seeded to rapeseed which was less than 10 cm high. About 70 m to the west, across a road allowance, an aspen bluff provided the nearest cover.

The nest was constructed of woody roots and rootlets and lined with grasses and fine rootlets, forming a mound on the mudflat similar to what an Avocet nest in a similar location might look like. It contained three eggs and was attended by a single adult. The bird stooped at the intruders in protest — flying up and diving down in a steep U pattern. Eventually it perched on a pole of the power transmission line which ran near the slough and south across the field. Attempts to photograph it did not result in a clear enough slide for reproduction, but the bird can be identified as a Bonaparte's Gull. A visit to the nest later in the summer by Tom Lamont found it empty and

disturbed, as though by a predator, with no sign of the adult bird.

Breeding Bonaparte's Gulls are apparently not new to this area. Dan Lamont recalls observing similar birds, which he noted were smaller than the familiar Franklin's Gull, nesting among the reeds in the marsh next to Low Lake (E 2-50-24-W3; locally known as Hunter's or Foster's Lake and about 13 miles north and 4.5 west of Maidstone, Sask.) where hay was cut in the early 1930's. These nests however were similar to those found at Lamotte's Swamp, built among the reeds of the marsh. To the best of my knowledge this is the first time that a nest has ever been found on the ground.

I would like to acknowledge the help of W. C. Harris in obtaining information for the preparation of, and critical comments on this article. C. S. Houston kindly offered his opinion on Raine's record (a sneak preview into a future publication!) and H. W. R. Copland provided copies of nest records of the Bonaparte's Gull from the Prairie Nest Record Scheme.

¹BENT, A. C. 1963 edition. Life histories of North American gulls and terns. Dover Publ., New York.

²GODFREY, W. E. 1966. The birds of Canada. Nat. Mus. Canada Bull. 203. Ottawa. 428 pp.

³MACOUN, JOHN and J. M. MACOUN. 1909. Catalogue of Canadian birds. Gov't. Printing Bureau, Ottawa. 761 pp.

⁴RAINE, W. 1892. Bird nesting in north-west Canada. Hunter Rose & Co., Toronto. 197 pp.

⁵SYMONS, R. D. 1967. Hours and the birds. Univ. of Toronto Press, Toronto. 224 pp.

⁶THOMPSON, E. E. 1891. The birds of Manitoba. Second ed. 1975.

A SABINE'S GULL AT REGINA BEACH, SASKATCHEWAN

CHRISTOPHER I. G. ADAM, 14 -
1209 Pasqua St., Regina, Saskat-
chewan.

The first sighting of the Sabine's Gull at Regina Beach on 28 October, 1979, by Bob Luterbach and myself is a good example of the teamwork so essential in birding. We had arrived at the Regina Beach Yacht Club shortly after 1100 hours. The weather was cold, windy and overcast. Bob was scanning for birds far out on the lake and, since I couldn't see past him in the car, I decided to check down in front near the shore. A small dark gull suddenly flew in from the west and landed near the docks at the yacht club. It was confirmed as a Sabine's when the wing pattern was observed. The forked, black-banded tail identified the bird as an immature. We left to notify Doug Gilroy but upon our return, the bird had disappeared. Later, about 1300 hours, the gull was spotted in the dock area again, where it remained for some time. The bird was seen on subsequent days, affording good opportunities for photographs. A Bonaparte's Gull was also seen in the yacht club area at the same time.

Godfrey states that the Sabine's Gull is a "rare migrant in the Canadian interior but recorded in Alberta, Saskatchewan, Manitoba, Ontario and Quebec."³ Previous sightings for Saskatchewan are as follows:

- (1) 9 June, 1914; Sandy Lake, Churchill River, 3 birds.¹
- (2) 11 June, 1960; Black Bay, Lake Athabasca, 11 birds, 2 specimens taken.⁶
- (3) 20 June, 1969; Madge Lake,

Duck Mountain Provincial Park, 1 bird.²

- (4) 21 Sept., 1969; Prince Albert, 1 imm.⁵
- (5) 24 Oct., 1971; Old Wives Lake, 1 bird.⁴
- (6) 8-16 Oct., 1977; Saskatoon, Max. of 7 (J. B. Gollop).⁷

¹BUCHANAN, A. 1920. Wildlife in Canada. McClelland, Goodchild and Stewart, Toronto. 264 pp. (See P. 224.)

²COPLAND, H. W. R. 1969. A Sabine's Gull in southern Saskatchewan. Blue Jay 27(3):146-7.

³GODFREY, W. E. 1966. The birds of Canada. Nat. Mus. Can. Bull. 203. 428 pp.

⁴HOUSTON, C. S. Northern Great Plains (Fall migration, 1971). Am. Birds 26:78-80.

⁵HOUSTON, M. I. 1974. Interesting Prince Albert records by E. Derek Beacham. Blue Jay 32(2):110-112.

⁶NERO, R. W. 1963. Birds of the Lake Athabasca region, Saskatchewan. Spec. Publ. 5, Sask. Nat. Hist. Soc., Regina.

⁷SERR, E. M. 1978. Northern Great Plains (Fall migration, 1977). Am. Birds 32:220-223.

LARGE CLUTCHES OF RING-BILLED GULLS IN MANITOBA

W. H. KOONZ, Wildlife Research Specialist, Manitoba Dept. of Natural Resources, 1495 St. James Street, Winnipeg, Manitoba.

On 11 June 1979, Bachelor's Island (51° 45' N, 99° 53' W) in Lake Winnipegosis was surveyed for colonial nesting birds. Nests numbered 1,596 Ring-billed Gulls, eight Herring Gulls and 170 Double-crested Cormorants.

The Ring-billed Gull colony appeared to contain complete clutches, although no young had yet hatched. Their nests contain "usually three, sometimes two, very rarely four" eggs.¹ Sixty-two of these Ring-billed Gull nests contained four eggs, eight had five eggs and one had six eggs. The remaining gull nests had the usual three. Numbers of four- and five-egg clutches appear significant because they infer a larger than normal clutch size rather than the pairing of two females.

Other Ring-billed Gull colonies surveyed in 1979 contained abnormal clutch sizes, but none approached the proportion documented on the Bachelor's Island colony.

HARRISON, COLIN. 1978. A field guide to the nests, eggs and nestlings of North American birds. Collins, New York. 416 pp.

BALD EAGLE NEST IN A MANITOBA HERON COLONY

W. H. KOONZ, Manitoba Dept. of Natural Resources, 1495 St. James Street, Winnipeg, Manitoba.

On 19 June 1979, while making an aerial census of a Great Blue Heron colony on one of Lake Winnipegosis' Sister Islands (52° 25' N, 99° 46' W), two observers and I saw two adult Bald Eagles close to a nest containing two young eagles. The nest was near the top of the island's largest tree, a dead balsam poplar (*Populus balsamifera*). I did not see any active heron nests in that tree although there were 30 or more active nests in surrounding trees, some at a distance of 10 m or less. The eaglets

were several weeks old while heron chicks were just beginning to hatch.

The observation is of interest and worthy of future field observation to determine if the two species will co-exist in such close proximity. The abandonment of a heron colony at Beaver Lake (54° 43' N, 111° 53' W) between 1970 and 1972 supposedly due to the establishment of an eagle nest in the colony was reported by Vermeer (Can. Field Nat. 87:427-432).

EAGLE/COYOTE INCIDENT

SIG JORDHEIM, White Bear, Saskatchewan, S0L 3L0.

On 25 November 1979, I was on a hill overlooking Lake Diefenbaker. At this late date there were still several hundred Canada Geese and Mallard ducks on about an acre of open water toward the south shore of the lake.

I noticed a gathering of eagles on a small island close to the north shore. Through 16X binoculars I noted that one Golden Eagle was feeding on a Canada Goose, and four others were gathered around, hoping to get something for themselves. While they seemed to respect the feeding eagle, they were constantly harassing each other; at one time two of them came to grips and thrashed wildly for a moment until one got free and gave ground.

Then I saw a coyote trotting briskly toward the gathered eagles, coming across the ice from the south side. On getting closer it broke into a lope, then on reaching the island, with head lowered, hackles up and tail swinging from side to side it charged directly at the eagles.

The four that had no prey took to the air, but not the one with the goose. When the coyote was quite close, the eagle jumped right at it, and from my vantage point, it looked as if it actually grabbed the coyote. There was a lot of action for a brief moment; the eagle with flailing wings and the coyote struggling to get back in the direction he had come from.

Suddenly the coyote dashed around the eagle and made a rush for the goose, but before he could pick it up, the eagle again attacked and the coyote jumped out of reach.

Now the eagle remained on the goose carcass and resumed eating as if nothing had happened. The coyote meanwhile circled the feeding bird at a distance of perhaps eight feet. Once he tried to sneak up behind and grab something, but immediately the eagle turned and struck out with his feet and the coyote hastily retreated.

Eventually he lay down some 30 feet from the eagle and waited. In about a half-hour the big bird had his fill and flew away. Immediately the coyote picked up the remains of the goose and trotted back to the south side and there stopped to eat.

CARDINAL AT PIKE LAKE, SASKATCHEWAN

STANLEY J. SHADICK, 810 Main Street, Saskatoon, Saskatchewan, S7H 0K3.

On 14 October 1979, the Saskatoon Natural History Society's Rare Bird Alert sprang into action and reported two rare sightings. A farmer near Warman had spotted three Whooping Cranes. Meanwhile at Pike Lake, Laura Hoyte reported

that a male Cardinal had been regularly visiting her bird feeder. Two rare birds in one day presented a dilemma — which bird should one look for? The only reasonable solution — look for both. That afternoon I drove out to the Warman district with my parents and found several SNHS members looking for the Whooping Cranes. After an hour's search we found them behind a hill. After viewing the whoopers, we continued on to Pike Lake. Ten minutes after arriving we were delighted to find the Cardinal emerge from the bushes and feed on the ground with some juncos.

The Cardinal had first been spotted in the area as early as late July by the Hoytes' neighbours, Mr. and Mrs. Bell. However, the Cardinal was then very elusive and was seen only occasionally until mid-October. From 14-27 October, it visited Hoyte's feeder regularly. During this period it was observed by many members of the Saskatoon NHS. Stuart and Mary Houston attempted to trap the bird for banding purposes but were unsuccessful. Lawrence Baschak was able to obtain several photographs.

The only previous record for the Saskatoon district was a Cardinal observed by Frank Roy and party on the May Day Count, 26 May 1951 (*Blue Jay*, 15:102). Other Saskatchewan observations were made east of Yorkton by P. Fraser in May 1895 (*Blue Jay*, 19:142), in Regina by F. G. Bard during summer 1926, in Esterhazy by Mrs. Bert Ford during January 1951 and at the farm home of Mrs. Ted Scriven on 9 July 1951 (*Blue Jay*, 19:77). The last report in Saskatchewan was a male collected at Craven by R. W. Nero and Elmer Fox on 29 December 1960 (*ibid*). The Pike Lake observation therefore represents the only Saskatchewan report during the last 19 years.

LARK BUNTING IN NORTHEASTERN ALBERTA

ALAN J. KENNEDY, Canadian Wildlife Service, Room 1000, 9942 - 108th Street, Edmonton, Alberta, T5K 2J5.

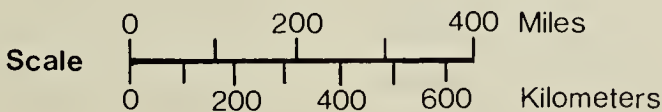
On 20 September 1979, a male Lark Bunting was seen near Fort McMurray, Alberta (Figure 1). This species breeds from the southern Prairie Provinces (see Figure 1) to New Mexico and Texas.² It is considered a casual resident in southern Alberta, Saskatchewan, and Manitoba.¹ Previous northern site records are from: Vegreville and Beaverhill Lake, Alberta; Prince

Albert and Regina, Saskatchewan; and Brandon, Manitoba.^{2 1}

The bird reported here was observed flying on the southeastern shore of Ruth Lake (56° 7' N, 111° 9' W) approximately 44.8 km (28.0 mi.) north of Fort McMurray, Alberta. E. Butterworth and I sighted it twice on 20 September. I observed it again on 25 September. Both sightings were at the same location.

These records represent a 400 km (250 mi.) extension to the known range of this species. Observation of this species late in the fall is also rare.

These sightings were made while conducting bird surveys for Syncrude Canada Ltd. I appreciate the assistance given by Syncrude personnel in completing this note.



Breeding Range of Lark Bunting (Salt and Salt 1976) Previous Sightings New Sightings

Figure 1. Distribution of Lark Bunting on prairie provinces showing range extension.

¹GODFREY, W. E. 1966. The birds of Canada. National Museum of Canada. Bull. 203. Ottawa. 428 pp.

²SALT, W. R. and J. R. SALT. 1976. The birds of Alberta. Hurtig, Edmonton. 498 pp.

LAZULI BUNTING AND ROCK WREN AT SYLVAN LAKE, ALBERTA

HELGE S. ABRAHAMSON, Box 268,
Sylvan Lake, Alberta, T0M 1Z0.

Living at Sylvan Lake on NE 39-2-W5, I have for more than 40 years been active with bird observations. In July 1967 I sighted a blue bird that was much different from the Mountain Bluebird. I looked it up in my bird book and concluded it was a male Lazuli Bunting. Three days went by before the bird left the deciduous, scrubby growth which surrounded my house. Then in 1971 I saw one by my house in the same area as the first sighting. This same day another Lazuli Bunting was seen at the Scout Camp, a mile and a half from my house. This indicated that there were more than one of these birds in the area. No sighting of the female was made.

The *Blue Jay* of September 1979 contained an article "The Rock Wren in Saskatchewan" which was quite interesting. This is also an unusual bird of my area according to my bird book, "Birds of North America" by Robbins, Bruun and Zim. In 1972, along a rocky shoreline with sandstone cliffs on a stretch of Sylvan Lake beach, I observed a pair of these birds and found their nest in early July. I haven't been back to this particular area. Where I live on the southern edge of this lake, I have never observed any Rock Wrens.

MOCKINGBIRDS AT RESTON, MANITOBA

DAVID L. BRADDELL, Box 304,
Reston, Manitoba, R0M 1X0.

On 1 August, 1979, in response to a phone call from Bob Moore, local building contractor, I checked out a bird of unusual imitative ability and a long tail.

At Third Avenue and Eighth Street in Reston, I observed a bird perched on the top of Bryon Jago's TV antenna. Its flicking, long, dark tail, slender gray and whitish body, and its imitation of the songs or calls of four species of other birds suggested it could be a Mockingbird. While I was observing the bird, using 10X binoculars, it flew down from its perch and displayed a prominent white patch on each wing. In landing on a nearby lawn, the bird raised its wings and tail briefly, revealing white wingbars and patch, and lateral white edging to the tail. A slightly downward curving bill and pale eyes were evident.

Later the same day, Mr. Moore reported having seen two such birds simultaneously, one on a hydro line the other on a TV antenna two blocks away. They were imitating other birds but differently from one another, he said.

On 31 July, one of these birds was heard by Evan Ellis and Mrs. W. A. Elliott, and was seen 1 August by Mr. Moore, myself and several other persons. Mr. Ellis stated he had seen the bird fly down more than once to get raspberries from the garden next door.

On 3 August, Bryon Jago reported two mockers, having heard and seen one on a TV antenna, and then only a moment later, heard another

one a block away, mimicking other birds.

Checking later the same day, I heard the bird sing its own melodies with up to five repetitions, and imitations of more species than had been previously heard. Around 1700 my wife and I and Mrs. Iris McMurchy checked the area again, and heard and saw one bird, its imitations including yet other species of birds. Next day, about 0800, Mrs. W. A. Elliott heard mimicking and saw two birds of the same general colour and slenderness on a TV antenna. They were close together, she said. Since then, no one has seen or heard anything here of the visitors.

Reports of at least four persons show that the mockingbird mimicked the song or call of the following animals: Yellow-shafted Flicker, Eastern Kingbird, Baltimore Oriole, Red-winged Blackbird, American Robin, House Wren, Black-billed Magpie, Blue Jay, Common Nighthawk, Black-capped Chickadee, Western Meadowlark, House Sparrow, Purple Martin, American Goldfinch, frog and dog.

PURPLE MARTINS NEAR WHYTEWOLD, MANITOBA

JEAN BANCROFT, 306 - 200 Tuxedo Avenue, Winnipeg, Manitoba, R3P 0R3.

During the past few years I have been able to observe several colonies of these delightful members of the swallow family in and around Whytefold, in the southwest corner of Lake Winnipeg.

I was delighted, therefore, in the spring of 1979, to notice two new colony houses had been erected,

enabling me to keep a record of 12 colonies (two of which were not in compartment houses).

The prevalence of martins in this area could be due to the fact that there is always an abundance of insects, particularly mosquitoes, fishflies and dragonflies. To my knowledge, during the past 25 years, there has never been any spraying for mosquito abatement.

In general, the colony houses contained from 12 to 18 compartments and stood on poles ranging from approximately 3 m to 7 m high. However, this summer I discovered a unique colony house, situated in a beautiful garden just off a main highway near Gimli (which is approx. 24 km north of Whytefold). This colony house contained 56 compartments and stood on a pole a little less than 3 m in height. As I thought it was very interesting I approached the owner of the property and she told me her husband had built it 15 years ago, erecting the circular bottom part one year and adding the top part the following year. Every year the colony house apparently has been full. Each compartment comes apart and is cleaned out every fall. When the house was first erected there was a very large open lawn area but, even though there are many small trees in the garden now, the birds' flight to the house is not obstructed in any way.

Martins, as Godfrey states in his *Birds of Canada* prefer "open places . . . forage both high and low over open water, marshes, and open terrain." Open terrain seems to be very important. For instance, for four years I have observed another colony house of 14 compartments, close to a busy roadway but the number of occupants decreased this summer, presumably due to poor accessibility to the entrances. The house was

erected on top of a sawed-off maple about 4 m high, and new sprouts had grown too lengthy. Eventually, the owner cut off some of the leafy branches and thus several pairs were able to complete the nesting period.

Two colonies were of particular interest, in that they *were not* in compartment houses. One which I have observed for several years was under the gable where two buildings were joined together. My binoculars revealed that several females were sitting in total darkness on nests which appeared to be small heaps of grasses. The second colony was at the other side of the same building, close to the roof. I discovered that martins were flying in with food underneath one of the aluminum ventilator flaps of an air-conditioning unit. I could see some bits of grass and a white feather protruding. Later on in the season I observed fledglings on the roof above the nesting area.

It is claimed by some people that martins abandon a colony house if sparrows nest in any compartment. However, from my observations, I know that this is not always the case. In one yard there were two 12-compartment houses where five sparrow families were living peaceably all season. In four other successful colony houses I noticed one or two pairs of sparrows nesting.

In observing the colonies several incidents in particular interested me. Amongst these were the following:

A. I could hardly believe my eyes when I noticed, on two occasions during nest building, a male flying onto a stoop with two horizontal twigs in his beak, one being at least 1.3 cm longer than the diameter of the hole. He flew three times at the hole and then with a quick determined lunge he disappeared into the hole with the sticks.

B. No matter how many compartments were in a colony house both male and female knew the entrance to their own compartment. How they have this sense of recognition is another of Nature's mysteries.

C. I was astonished when I noticed two adults fly to the holes with a large dragonfly in their beaks and, in each case, a young martin gulped it down in one piece.

I find Godfrey's remarks in regard to these members of the swallow family very appealing when he says, "their graceful flight, pleasant voices, gentle ways, and economically beneficial food habits make them a real asset to have about."

PRAIRIE NEST RECORD SCHEME REQUIRES NEW PARTICIPANTS

The number of persons taking part in the Prairie Nest Record Card Scheme has been dropping and very few new contributors are replacing them. Some of the contributors have moved to other areas of Canada and likely others have lost interest or are no longer able to take an active part. More contributors are needed for all three provinces, but particularly Alberta and Saskatchewan.

Prairie Nest Record Cards are used by government departments, graduate students and other persons doing research on birdlife. Therefore it is a valuable program to continue.

Information and blank cards can be obtained from H. W. R. Copland, Prairie Nest Records Card Scheme, Manitoba Museum of Man and Nature, 190 Rupert Avenue, Winnipeg, Manitoba, R3B 0N2.

SASKATCHEWAN CHRISTMAS MAMMAL COUNT — 1979

Compiled by WAYNE C. HARRIS, Box 93, Raymore, Saskatchewan, S0A 3J0.

A total of 42 counts were submitted this year, recording 27 species during the count period. The number of counts is the same as last year while the number of species recorded was one less than last year's record high.

Only one species, Fox Squirrel, was reported that has not been recorded on previous counts. As this is a species new to Saskatchewan, attempts should be made to provide documented evidence (photographs) of its occurrence. The Fox Squirrel is not native to Canada and is found only on Pelee Island in Ontario where it was introduced in 1890. A viable population still exists there today. The current range of the Fox Squirrel includes southern Michigan and south eastern North Dakota and this sighting would therefore be about 800 km northwest of this range.

The population trends of almost all

species appear stable with very little change over last year. Only our two common wild canines, the Coyote and Red Fox showed changes. The Coyote increased slightly over last year while the Red Fox is down in numbers. The Lynx was again unreported.

For weather, coverage and participants of these counts please refer to the Christmas Bird Counts found elsewhere in this issue. Symbols found in the Table are as follows:

- * Identified by tracks with the estimated number of animals in parentheses.
- + Seen during count period but not on count day.
- L Active lodges seen with the number in parentheses.
- D Freshly dead animals found with the number in parentheses.
- H Species heard but not seen with the number in parentheses.
- S Scats of the species found.



White-tailed Deer browsing on twigs.

L. A. Morgotch

	Battlefords Dec. 26	Biggar Dec. 22	Big Gully Creek Dec. 20	Broadview Dec. 24	Dalmeny Dec. 29	Duperow-Ruthilda Dec. 28	Eastend Dec. 17	Eastend Dec. 17	Eastend Dec. 17	Endeavour Dec. 26	Feudal Dec. 31	Fort Qu'Appelle Dec. 22	Fort Walsh Dec. 16	Frontier Dec. 24	Gardiner Dam Dec. 19	Govenlock Dec. 15	Harris Dec. 21	Humboldt Dec. 29	Indian Head Dec. 30	Kenaston Dec. 23	Kindersley Jan. 1	Kutawagan Lake Dec. 26
Shrew sp.																						
Raccoon																						
Red Fox	•(4)				1				2	•(1)									•(3)	•		
Coyote	•(2)	3	4	•(7)			4		1		1		12			•(4)	6	•(1)	•(3)	•(2)		•
Timber Wolf										•(4)												
Ermine																						
Least Weasel												1								•		
Long-tailed Weasel				•(3)					1										•(1)			
Weasel sp.	•(1)		•(2)								•		•(7)		•(10)		•(5)		•(3)			•
Mink				•(1)														•(1)	•(1)	1		
River Otter																						
Striped Skunk																						
Badger									1													
White-tailed Jack Rabbit		2	•	•(3)	5	1	•(2)	6	2	2			1		3	•	1	•(6)	5	•	1	7
Snowshoe Hare	1		1	•(21)					4	4	1	1	•(6)					•	4	•		•
Nuttall's Cottontail							1						•(1)		1							
Red Squirrel	2	2	21	5					2	2		6	68					1	11			
Fox Squirrel																						
Beaver																				L(1)		
Meadow Vole													3									
Deer Mouse		1																				
Mouse sp.	•(5)		•				•(4)						•						•(6)			
Muskrat							•(1)					2							1			
Porcupine		1	•	•(1)	1						D(1)		4					•(2)	2			
Elk													•(10)									
Mule Deer							+	26					25	3		6	5					
White-tailed Deer	8	1	•(10)	•(7)		2	3	3	2	•(1)	•		10	3	7		12	3	17	•(3)		•
Deer sp.																						
Moose										•(3)			4									
Pronghorn							26		8				8									
Total Species	7	5	8	8	3	2	8	8	8	7	5	4	14	2	5	3	5	7	13	8	1	5

	Last Mountain Lake Dec. 27	Leader Dec. 17	Leader Dec. 30	Luseland Dec. 26	Maldstone Bridge Dec. 18	Moose Jaw Dec. 26	Nicollie Flats Dec. 28	Prince Albert Dec. 30	Raymore Dec. 27	Regina Dec. 26	Round Lake Dec. 30	Skull Creek Dec. 26	Spirit Lake Dec. 23	Spring Valley Dec. 28	Squaw Rapids Dec. 23	Squaw Rpd.-Sipanok Chnl. Jan. 2	Waseca Dec. 26	Waskesiu Dec. 29	Webb-Swift Current Dec. 19	Whitebeech Dec. 26	Yorkton Jan. 1	Total Counts/Species
Shrew sp.				1						•(1)												2
Raccoon																						2
Red Fox				•(20)					•	•(1)	•(2)				3		•		+	•(1)	+	14
Coyote	•	•(3)	H(1)	1	17	•(1)	1	•(2)	1		•(4)	6	H(3)	1	5		•	S	•(6)	+	•(3)	34
Timber Wolf									•(3)						1	•				•(2)		2
Ermine																	•					3
Least Weasel																	•	+		•(2)		5
Long-tailed Weasel									•(1)		•(6)	+		+								7
Weasel sp.	•	•		•(3)	•		•(4)	•	•(1)		•(3)	+	+	1	•					•(4)		19
Mink								•(1)	•	•(1)	•(3)			+	1	•				•(1)		12
River Otter																						1
Striped Skunk				•(1)		1					•(1)											3
Badger			•(1)	•(1)								+	•(1)	+								6
White-tailed Jack Rabbit	8	•	1	2		3	1	•	11	65	•(2)	1	•(10)	12	•		•		•(20)	+	+	35
Snowshoe Hare	•	•(1)		•	3	1	2	•	3	3	1		•(30)		2		•		2	•		26
Nuttall's Cottontail		•(20)	1									+							•(4)			7
Red Squirrel					3		1	12	H(1)		3		H(3)		72	3	•	5		3		19
Fox Squirrel										•(1)			L(2)		L(3)							1
Beaver						•(1)	•(1)					1			8							6
Meadow Vole						•	•(50)										•					3
Deer Mouse																						2
Mouse sp.	•	•			•			•	•	•(2)			•(2)	•	•							14
Muskrat							3								1							5
Porcupine	•	2			+		1	•(1)	•(3)		•(2)	+	2		•		•				+	20
Elk															1	6		•				4
Mule Deer		•	6									+		5								10
White-tailed Deer	•	•			•(10)	•(2)	7	•	•	•(1)	•(15)	+	•(6)		•		•		•(100)	•		33
Deer sp.				•(8)															•			3
Moose															1			2		•(4)		5
Pronghorn		17																	•(2)			5
Total Species	7	10	5	9	7	8	10	9	11	7	10	10	10	12	16	2	9	5	7	10	7	

A POSSIBLE SIGHT RECORD OF THE BLACK-FOOTED FERRET IN SASKATCHEWAN

WILLIAM B. PRESTON, Manitoba Museum of Man and Nature, 190 Rupert Avenue, Winnipeg, Manitoba, R3B 0N2.

On 17 June 1979, accompanied by my seven-year-old daughter, I visited Chimney Coulee, four miles (6.4 km) north of Eastend, Saskatchewan. At approximately 1100 hr. MDT, I was walking up the coulee on a dirt track, near the cairn, when my attention was attracted by the movement of a small mammal leaping in weasel fashion through low shrubbery (approximately 0.5 m in height) to my right, between my daughter and myself (Figure 1). As it crossed the track about 20 m in front of me I

recognized it as a black-footed ferret (*Mustela nigripes*). The animal disappeared into aspen bush on the north side of the track. My daughter, who did not see it, possibly had frightened it toward me.

The animal I saw was somewhat larger, more heavily built, and had a shorter tail than a long-tailed weasel. It was very pale in colour, much paler than the palest long-tailed weasel in the collections of the Manitoba Museum of Man and Nature, and the



Figure 1. The ferret was first seen in the low shrubbery, right foreground, a few minutes before this photograph was made with a telephoto lens.



Figure 2. Habitat near the area where the ferret was seen.

tip of the tail was black. As it did not look at me I did not notice a mask on the face.

Except for the woods in the coulee the area is mixed-grass prairie with shrubs (mainly *Artemisia*) (Figure 2), and there are numerous ground squirrel burrows (probably Richardson's ground squirrel) dotting the hillsides.

Not until later did I realize the significance of this sighting. According to Banfield the last Canadian specimen of the black-footed ferret was taken in 1937 at Climax, Saskatchewan, "... and the species is now

believed to be extirpated in Canada."² Anderson reported 22 records, including 11 specimens, from Saskatchewan between 1929 and 1937, most of these from within 50 to 70 km of Eastend.¹

I wish to thank Dr. J. R. Jowsey for his encouragement in publishing this note and Dr. R. E. Wrigley for making valuable suggestions.

¹ANDERSON, R. M. 1946. Catalogue of Canadian Recent Mammals. Nat. Mus. Canada, Bull. No. 102, 238 pp.

²BANFIELD, A. W. F. 1974. The Mammals of Canada. Univ. of Toronto Press, Toronto, 438 pp.

NATURE LIBRARY

GEOLOGY OF SASKATCHEWAN: A HISTORICAL APPROACH

ANTHONY GORDON. 1979. Western Extension College Educational Publishers, Saskatoon, Saskatchewan. 56 pp. \$4.75. Senior Edition (68 pp.) \$5.75.

On a day in late December 1979, a group of us stood in a gravel pit on the Davin moraine east of Regina and pondered the ebb and flow of the glacier that shaped this area. When, and how long, did the glacier stand there? Dr. Gordon's new book, *Geology of Saskatchewan*, gives answers to questions such as these. To students in our schools from Grade VII to Grade X and to students of Grade XII geology, in particular, but also to casual observers of the natural world, *Geology of Saskatchewan* will provide an appreciation of the land formations and scenery of Saskatchewan, and the forces which shaped this province over the last three billion years.

Two versions of the book are available, an edition for student use and a senior edition with additional information throughout, plus two additional chapters on projects and sources of information. The student edition first introduces geology as a science, then deals chapter by chapter with the relation of the study of geology to Saskatchewan, in a style that does not over simplify, but presents topics in a way that students can understand (even without use of the glossary). The first chapter provides a background for consider-

ing Saskatchewan in relation to the geological process which shaped our prairies. The second chapter discusses the Precambrian eras in enough detail to relate the lowest bedrock to the other rock formations and soils which developed later. The next three chapters discuss events of the Paleozoic era, Mesozoic plus Cenozoic eras, and glaciation in Saskatchewan. The final chapter deals briefly with resources of the earth in Saskatchewan and gives facts and due balance to the value of mineral (i.e. commercial) resources, groundwater and soil. In the senior edition two additional chapters on "Projects on the Geology of Saskatchewan" and on "Useful Information" supplement the student edition with suggestions for assignments to a teachers. The senior edition is distinctly more satisfactory for the more serious casual adult student of geology.

In the same chapter are treated both the Mesozoic era, which involved extensive radiation of plants and animals, and the Cenozoic, which included major development of mammals and higher plants as well as the evolution of man. Cenozoic time might have been treated in a separate chapter. The maps which indicate the progress of retreat of the Wisconsin glacier are extremely useful, but separation of explanation of events in the ice retreat from the actual map makes the use of the maps more difficult.

This book will fill a real need in Saskatchewan schools. It will serve both Grade XII and the lower grades that could not use the old *Grade X Geology*. It will also suppleme

various levels of the teaching of the geography of Saskatchewan. It will serve a wider purpose too — teachers who use it in their classes will have their vision of the whole Saskatchewan scene broadened, not just in geology and geography, but within the social sciences and agriculture. Though some might question such a use, it will be useful in teaching art, for the soaring and varied vistas of Saskatchewan can inspire those who view them to reproduce them in a variety of art forms. Relative to use of this book in our school system, a word of caution should be introduced. While the book is useful without supplementation provided the teacher has a copy of the senior edition, teachers who expect to develop a full realization of the nature and significance of Saskatchewan geology in their students should have at least an introductory university course in geology. Even for the casual person it is a pity that the student edition leaves out many dates and additional details. Students from Grade VII to Grade X could use either edition effectively.

Another group of readers, the natural history people and all true outdoors people, will find *Geology of Saskatchewan* a must for understanding this province. The question and answer form of the author's presentation, as well as its uncomplicated organization and straight-forward style, make this book a vital reference for all those who try to understand the Saskatchewan scene. The author, who adopted Saskatchewan as his home after his formal education was complete, has provided the widening of vision of this province which has been needed for at least 50 years. Let us hope that our schools will all use this book somewhere in the intermediate grades. Those who do not are denying their students a fuller un-

derstanding of the Saskatchewan scene. — Reviewed by J. R. Jowsey, 2635 - 19th Ave., Regina, Saskatchewan, S4T 1X2.

BUDD'S FLORA OF THE CANADIAN PRAIRIE PROVINCES

J. LOOMAN and K. F. BEST. 1979. Agriculture Canada Publication 1662, Ottawa, Ontario. 863 pages. \$8.20 in Canada; \$10.20 in all other countries.

This book, as the authors state, is not just a revision of *Wild Plants of the Canadian Prairies* but is a much expanded edition. Although *Wild Plants of the Canadian Prairies* by A. C. Budd and K. F. Best forms the backbone of this manual it has been expanded to include all of Alberta and Saskatchewan and most of Manitoba, which means the boreal forest and Rocky Mountain regions are now included along with the prairies and parkland treated in the previous publication. A total of 1974 species are included (an increase of over 700 species from Budd and Best). A total of 53 new illustrations have been added; these are in the form of black and white photographs of pressed botanical specimens. New sections on fruiting and flowering characters of *Carex* (Sedges), pods of Cruciferae (Mustards) and the main characters of *Salix* (Willow) are valuable additions to this volume. The much expanded sections on *Carex* and *Salix* include almost all species found in the prairie provinces, correcting one of the weaknesses of the previous works. The glossary has also been expanded to include definitions of additional terms.



Prickly Rose.

Fred W. Lahrman

The quality of the book itself was found to be excellent. The hard cover and relatively heavy weight paper for the pages will withstand heavy use both indoors and in the field.

No book is without typographical errors but this volume is amazingly free of them.

A few comments on factors detracting from the value of the book: To begin with, no bibliography is included. Even a brief general list

would have given the reader something else to consult if difficulties were encountered. For example, the species descriptions are brief but generally adequate, but in cases of uncertainty a bibliography would give additional references to check.

Another point I wish to make is that the authors have changed some of the scientific and common names but have made no reference to the name (synonym) which was used in

previous editions. For example *Koeleria cristata* changed to *K. gracilis* and Bluebunch Fescue changed to Idaho Fescue.

Two of the line drawings in the copy examined reproduced very poorly (*Festuca idahoensis* and *Hierochloa odorata*) with some of the lines not showing at all.

The last negative point I wish to make is that the authors do not appear to have done sufficient research on the distribution of the species included nor have they included all the species which have been recorded in the area. In a brief check I located published records (prior to 1977) for 32 species which have been found in Saskatchewan and are not included in this work. Specimens for each of these species are located in either Saskatchewan herbaria or in the Department of Agriculture herbarium in Ottawa — sources which the authors should have checked before publishing such a book. This example is for Saskatchewan, the same may or may not be true for Manitoba and Alberta. Some species excluded from this volume are included in either the *Flora of Alberta* or the *Flora of Manitoba* (i.e. *Allium geyerii*). Why they choose not to include these is a mystery.

The ranges given by the authors are also misleading for a considerable number of species. An example of this is *Arethusa bulbosa* which is stated to occur in the "southeastern Boreal forest" which I take to mean the southern boreal forest of Manitoba. The actual range is from the south side of Lake Athabasca through scattered localities in central Saskatchewan and from there through to southeastern Manitoba; not what I would consider southeastern boreal forest in the area covered by this publication.

In spite of these limitations this publication is still an excellent one and well worth the cost to any person interested in identifying the flora of the prairie provinces. The keys and descriptions are not cluttered with the scientific jargon found in so many manuals. It also presents for the first time, a book which allows one to feel reasonably certain that the Saskatchewan species he is trying to identify is actually included in the book, rather than having to have several manuals at hand. Both amateur and professional botanists alike will find this a very useful book. — Revised by Wayne Harris, Box 994, Prince Albert, Saskatchewan, S6V 5S5.

FLORA OF THE PRAIRIE PROVINCES, Part IV, Monopsida.

BERNARD BOIVIN. 1979. Issued as *Provancheria* No. 5, Universite Laval. Reprinted from *Phytologia*, Vols. 42 and 43. 189 pp. \$8.00.

After a long interval the fourth part of Boivin's "Flora of the Prairie Provinces" has appeared. The previous three parts were reviewed in these pages in June 1968, September 1969, and December 1972.

This fourth part covers the plants commonly known as monocotyledons, whose best known divisions include the grasses, sedges, rushes, lilies, and orchids. The grasses have been left out of Part IV, except for two pages of taxonomic innovations. The author explains, "The Grasses were originally scheduled for a separate publication, but they will likely be published as Part V of this Flora along with the general index, the

bibliography, and the glossary". This reviewer, without inside information, is not too surprised at this happening, from mere considerations of space; if it took about 600 pages in three parts to cover the dicots, then it ought to require 300 pages to do the monocots plus glossary, references, and index; this would equal two smallish parts or one oversize one.

This treatment of monocotyledonous plants shows the strengths and disadvantages of the previous parts. The keys to genera and species seem workable on the whole. The descriptions are concise. Technical botanical terminology is used throughout — the completed work will require a glossary for explanation of these terms. The author has spared no pains to run down the basis in actual specimen or in mistake for species reported but not commonly found. The artificial key to the families of monopsids (= monocots) on pp. 182-185 will be found of considerably greater use in practical identification than the natural keys on pp. 3-4 and 169.

The sequence of families in this part runs onward thus: lilies - orchids - rushes - sedges - (grasses) - water plantains - pondweeds. It is hence in almost the reverse order to the conventionally used sequence of Engler — not that that matters much, except for convenience; the Englerian idea that apetalous flowers were primitive is pretty generally agreed now to be mistaken.

The orders of the monopsids as delimited here mostly consist of but one family. They are thus of not much use in helping one form a mental framework for pigeonholing the plants one sees. It is noteworthy that by no system of plant classification do taxonomic orders leap to the eye of the naturalist as entities existing in

nature, the way they do in other groups, notably mammals and insects. Consider how much clearer everyone's ideas are about *Carnivora* (Beasts of Prey) or *Coleoptera* (Beetles), as compared with, say, *Celastrales*. Behind this effect must be hidden some information about the course of evolution, but one is not sure what.

Some scattered comments are as follows: This reviewer is not sorry to see the author send *Scirpus validus* and *S. acutus* back to the Linnean *S. lacustris*; he never could recognize more than one species in our population of Great Bulrush. The same holds for the discarding of segregates in *Sisyrinchium* (Blue-eyed Grass) in favour of the Linnean *S. bermudiana*. A similar proceeding in *Juncus*, whereby the author has subordinated *J. balticus* (Baltic Rush) to the Alaskan and Eurasian *J. arcticus* because of lack of sufficient differences (so thinks the author, and this reviewer must agree), will not be as welcome. The trouble is that *J. arcticus* is an older name, but *J. balticus* is much better known.

An oversight is the leaving out from key and descriptions the fact that *Sagittaria* (Arrow-head) is monoecious, there being distinct male and female flowers on the same plant.

This reviewer will make no remarks about the treatment of *Carex* (Sedges) here, because his views were sought on many points thereon.

I had expected to be able to write when called on to review Part IV of "Flora of the Prairie Provinces," "At last this great work is finished." But this cannot be said yet; we still have the Grasses to encounter. — Reviewed by *John H. Hudson*, The W. P. Fraser Herbarium, University of Saskatchewan.

A FIELD GUIDE TO THE NESTS, EGGS AND NESTLINGS OF NORTH AMERICAN BIRDS

COLIN HARRISON. 1978. Collins,
Glasgow. 416 pp. + 64 colour plates.
\$12.95.

A FIELD GUIDE TO WESTERN BIRDS' NESTS IN THE UNITED STATES WEST OF THE MISSISSIPPI RIVER

H. H. HARRISON. 1979. Peterson
Field Guide Series No. 25. Houghton-
Mifflin, Boston. 279 pp. + 32 colour
plates. \$11.95.

In addition to their illustrations,
these two books, both field guide
size, give more information on the
breeding of each species than con-
ventional bird books. Based on a
check of 10 species, the Collins-
published book averages about 215
words per species, the Peterson
volume 140, Godfrey's *Birds of
Canada* 45 and Peterson's *Field
Guide to Western Birds* 20.

A comparison of habitat, nest and
egg descriptions, clutch and in-
cubation data for four passerine
(songbird) species and six non-
passerines shows comparable
coverage. Different facts are
sometimes quoted in each, e.g., for
Mallards, from Collins you will learn
that the female builds the nest; from
Peterson that the nest is sometimes
2.4 km (1.5 miles) from water and
that the species uses artificial nests.

Red-winged Blackbirds are colonial
nesters (Peterson); this is not men-
tioned in Collins. There are also con-
tradictions: both sexes of Red-tailed
Hawk incubate (Collins); incubation
by female (Peterson); Horned Larks
are "sometimes double-brooded"
(Collins) and "2 or 3 broods" (Peter-
son).

The Collins book has 32 pages of
introductory material, including 12
pages of keys to nests, eggs and
nestlings. There are 14 introductory
pages in the other volume with no
keys. Collins has 5-25 lines of
general information preceding each
family, thus avoiding some repetition
in the species accounts; Collins also
gives months of breeding. Peterson
does neither but does have a brief
up-to-date statement of breeding
range, often has nest dimensions
and sometimes compares eggs of
one species with another, none of
which is done in Collins. The
Peterson book is sometimes more
explicit about habitat, e.g., for
Burrowing Owl: "Prairies, deserts,
sagebrush flats, canal dykes, air-
ports, large vacant urban lots"
(Peterson); "on prairies and open
grassy places" (Collins).

The titles, however, indicate the
two major differences between these
books: nestling data in the Collins
book and geographical distribution
— North America in Collins vs.
western United States in the
Peterson book (a companion volume
is available for the eastern United
States¹).

Nestling data seems a natural in-
clusion for a book on bird nests. It is
treated under headings of
"Nestling" (a description), and "Nest-
ling period", including behaviour,
usually in five to 10 lines of text. Six-
teen coloured plates show 147 newly
hatched young, at least one from
each of the 28 families of non-

	Number Species Breeding	Number of species with eggs not shown	
		Collins	Peterson
Alberta	250	4	69
Saskatchewan	246	4	69
Manitoba	265	4	90
N.W.T.	212	7	112
TOTAL	341	10	138

passerines found in the Prairie Provinces and NWT and one from each of seven of the 22 families of songbirds found here. In addition there are black-and-white drawings of downy grebes, grouse and shorebirds.

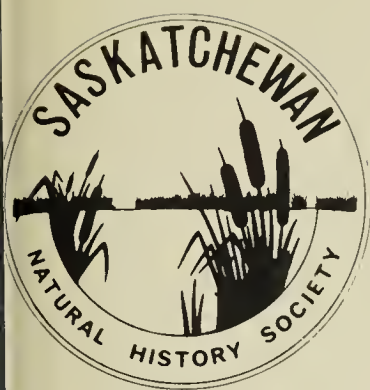
The geographical coverage results in major differences in the volumes' suitability for this region. A check of species whose eggs are not illustrated shows the Peterson series significantly deficient (see table). For the region as a whole, 40% of the species are not shown in this book, and a few of those included are only in black-and-white. The 10 species with no egg illustrations in the Collins book are: Yellow-billed Loon, Ross' Goose, Yellow Rail, Thayer's Gull, Pygmy Owl, Calliope Hummingbird, Alder Flycatcher, Western Wood Pewee, Black-throated Blue Warbler and Harris' Sparrow. All of these species' nests and eggs are described in the text; this is not the case with many of the missing Peterson ones. Most birds with no data in the Peterson volume nest only north of 55° but also omitted are: Sharp-shinned Hawk, Merlin, Gray Partridge, Franklin's Gull, Cape May, Chestnut-sided and Palm Warblers and six sparrows breeding in this region.

How do the coloured egg pictures compare? The Collins book, for the

most part, shows one egg of each species at 60 to 100% of life size. Most are life size; swans and Whooping Crane eggs are at three-quarter life size. Colour appears to be true. The Peterson series shows one clutch looking down into a nest for each species. However, these are so small (40 x 55 mm; 1.6 x 2.2 inches) that the shape and colour of egg markings and the shapes of some eggs are difficult to determine. The nest illustration on the dust jacket is, therefore, misleading: it is almost four times the size of pictures in the book. Furthermore, too many nests (and eggs) are off colour — too washed out, too blue, etc. This can be confirmed by comparing the illustrations in the western book with the same nests in the eastern version, where pictures are about four times as large. There are only 21 drawings of nests found in this region in the Collins book.

If you are only going to buy one of these books, Colin Harrison's, published by Collins, is well worth the money and is by far your best bet for this part of Canada. — Reviewed by J. B. Gollop, 2202 York Ave., Saskatoon, Saskatchewan, S7J 1J1.

HARRISON, H. H. 1975. A field guide to birds' nests in the United States east of the Mississippi River. Peterson Field Guide Series No. 21. Houghton-Mifflin, Boston. 257 pp.



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